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MINNESOTA MEDICINE

Pregnancy & RESIDENCY

ARE THE DEMANDS TOO GREAT?

Professionally Speaking:

"Eventually, every person with an eating disorder will seek help for physical symptoms."

Dr. Richard Justman,
Medical Director,
The Eating Disorders Institute.

Eating Disorders are insidious. But eventually there will be physical manifestations of the disorder, be it anorexia, bulimia or a combination of both. It has been our experience at The Eating Disorders Institute, that most people will seek help for symptoms even while attempting to hide the eating disorder from their doctor. Symptoms can include unaccountable abdominal pain, headaches, dizziness, heartburn, chest pain, sore throat, unexplained edema or amenorrhea.

At the Institute, we believe medical management is the key to successful treatment of Eating Disorders. As the primary physician you act as a consultant to our comprehensive team of experts who deal only with the eating disorder. Our philosophy rests on the belief that your patient needs the continuity of care you provide as a primary physician.

If you suspect that you have a patient with an eating disorder, or want to discuss treatment options, call me directly at the Institute, 932-6200 or call Methodist Hospital's toll free Physician Connection. In Minnesota call 1-800-932-2212. In adjacent states call 1-800-932-4212.

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"Arthritis Is An Old People's Disease."

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Popular Myth No. 2
"Because Arthritis Runs In Families, You Get Your Best Support At Home."

You might get tremendous support from family and friends. You might not. Either way, Metropolitan-Mount Sinai offers support groups to provide information, support and solutions to problems facing people who live with arthritis. Working with groups such as the Arthritis Foundation and the Sjogren's Syndrome Foundation, Metropolitan-Mount Sinai is here to meet your needs.

Popular Myth No. 3
"The Less You Know About Arthritis, The Better Off You Are."

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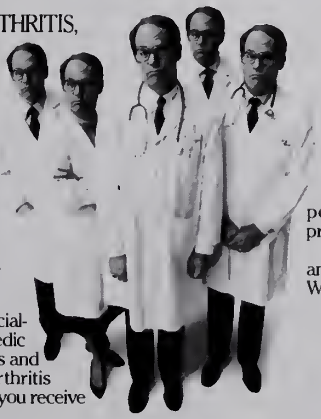
Five Popular Myths About Arthritis

Popular Myth No. 4
"When It Comes To Arthritis, If You've Seen One Doctor You've Seen Them All."

Arthritis is a very complex disease. It often takes the expertise of specialists in the field to effectively manage it. So, talk with your doctor. Ask him or her about Metropolitan-Mount Sinai's Arthritis Care Program. With a nationally recognized staff of professionals that includes rheumatologists (doctors specializing in arthritis care), orthopedic surgeons, highly skilled nurses and therapists, and a designated arthritis care medical director, we help you receive the finest care available.



Popular Myth No. 5
"If You've Got Arthritis, You May As Well Kiss Exercise Good-Bye."

Not only *can* you still exercise, you *should* still exercise. The key? Exercise without adding stress to your joints. Metropolitan-Mount Sinai is one of the few hospitals in the area with a therapeutic swimming pool. The pool is designed to provide relief from pain while improving range of motion and flexibility through exercise. We also use many other therapies and exercises to help people manage their arthritis. Before you take on an exercise program, speak to your physician or call the Arthritis Care Program at Metropolitan-Mount Sinai.

We don't want the myths about arthritis to stop you from living life to the fullest. For more information about the Arthritis Care Program at Metropolitan-Mount Sinai Medical Center or to receive *Ten Tips to Saving Energy and Protecting Your Joints,* call us Monday through Friday 8a.m.-5p.m. at 347-4135 (metro area) or 1-800-356-1540 (greater Minnesota).

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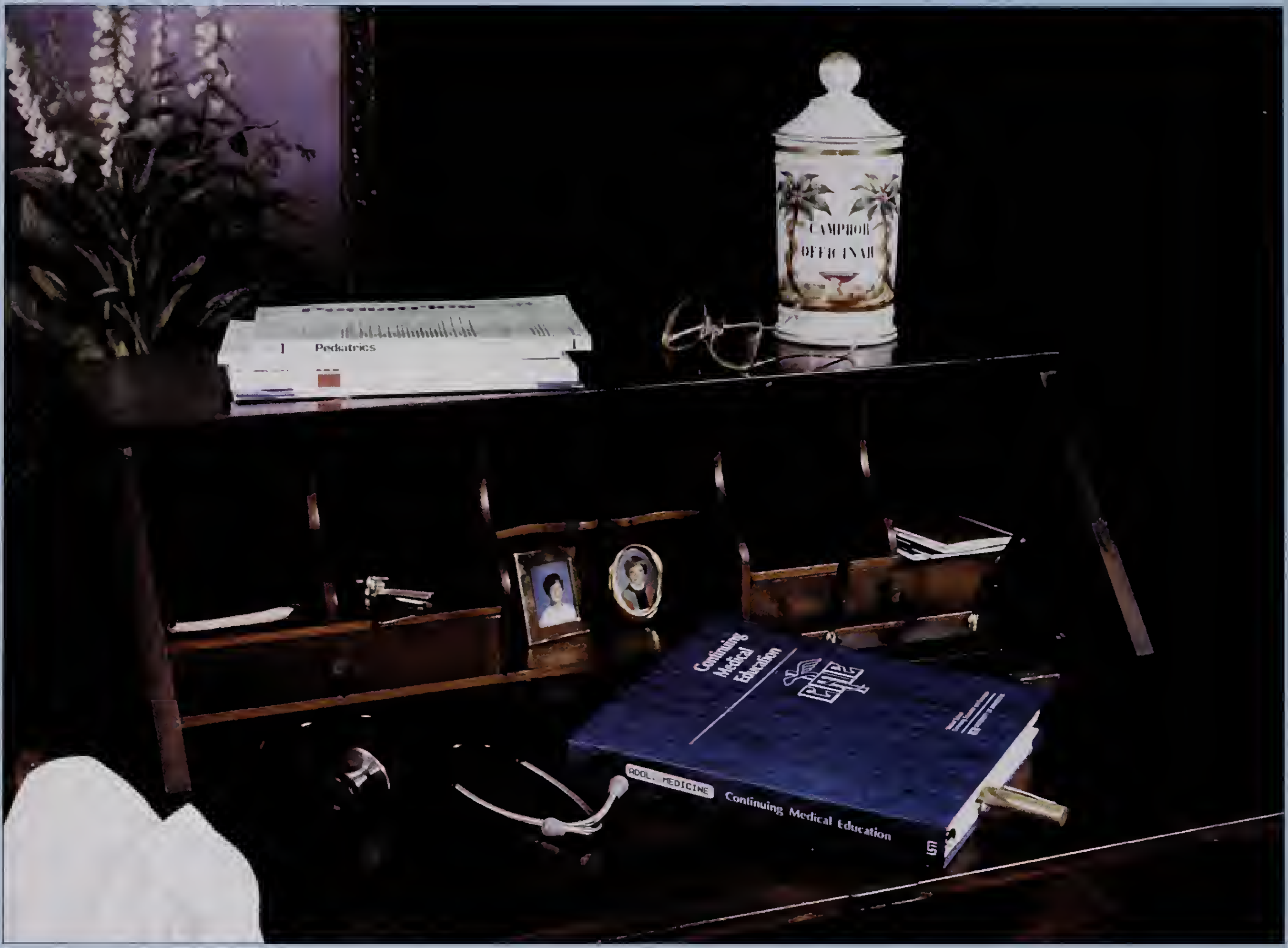
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A JOURNAL OF CLINICAL AND HEALTH AFFAIRS

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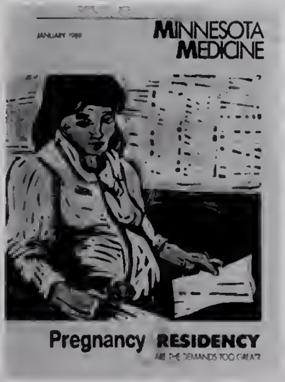
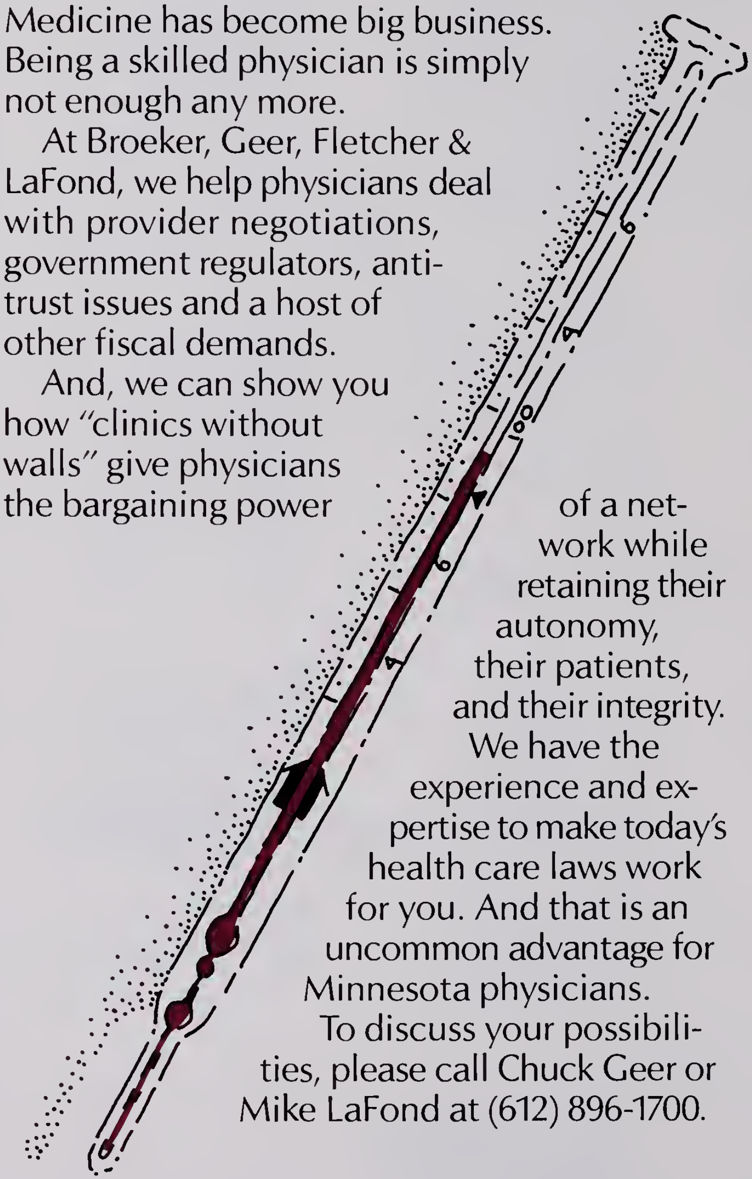


Cover Photo

PREGNANT RESIDENTS Doctors-in-training seldom have the time to take care of their own bodies — let alone bear a child. The woodblock print on this month's cover illustrates the rigors of being pregnant during what can be the most physically, emotionally, and mentally demanding years of a physician's life. Artwork by Gail Swanlund, a St. Paul graphic designer.



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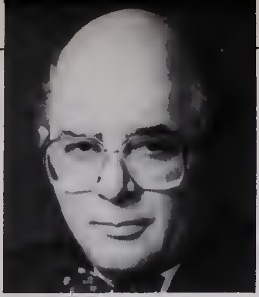

RICHARD L. REECE, M.D.

EDITOR'S NOTEBOOK

One Man's Sensitivity Training

My sensitivity training started in kindergarten. It was there I learned all I really needed to know about dealing sensitively with women:[1]

Share everything.
Play fair.
Don't hit people.
Put things back where you found them.
Clean up your own mess.
Don't take things that aren't yours.
Say you're sorry when you hurt somebody.
Warm cookies and cold milk are good for you.
Lead a balanced life—learn some and think and draw and paint and sing and dance and play and work everyday some.
Take a nap every afternoon.
When you go out into the world, watch out for traffic, hold hands, and stick together.
Be aware of wonder.

But despite this promising beginning, I relapsed. It was the 1950s. Little boys became doctors, lawyers, and engineers; and little girls dreamed of being nurses, teachers, and housewives. I never gave our roles a second thought. That's the way it was. The roles persisted through medical school. Four of my 80 classmates were women. That was 1960. By 1970, 10 percent of medical students were women; by 1980, 30 percent; and now in some schools it's 50 percent. At UCLA two years ago, a survey revealed more girls dream of being doctors than of becoming nurses.

The baby-boom generation, male and female, has arrived in full force. And it's profoundly changing America. These baby boomers are not like their parents.[2] They feel experiences are more important than material possessions; they are suspicious of authority; they are more interested in activities that help them grow than in work; they are obsessed with change and opportunity rather than security; they seek individuality and diversity rather than conformity; they are much more concerned about relationships with others than about status; they tend to be completely candid, to speak out plainly, rather than to talk in pleasantries; and they are extremely serious about professionalism, a career, and a complete life.

They want to have it all. But for upwardly mobile professional women, life poses cruel choices—early marriage versus a career, an early career versus late children, my career versus his. Young women physicians have to deal with financial pressures, professional relationships, marriage, social pressures, pregnancy, and consequences of parenthood. They have a difficult and wide range of choices, and this only puts the burden more heavily on each woman to make the right choice.

I understand these pressures. I also understand that women must fight against subtle put-downs, nuances of discrimination, and cultural attitudes. Sometimes women must work twice as hard and be twice as good to achieve equality.

But though I may understand, I am not—by conviction, by nature, or by persuasion—a feminist. Nor am I enthusiastic about the women's liberation movement. I believe in open minds; in promoting and rewarding talent and hard work regardless of gender; in equal pay for equal jobs; in removing the "glass ceiling" that keeps women out of top management; in the abilities of gifted women; and in the contributions women are making to medicine on all fronts, but I don't believe in mindless overcompensation because of one's sex.

If there's anything I've learned in my 25 years as a physician—which happily coincides with the rising tide of women entering the profession—it's not to stereotype the sexes. Oh, I'm aware most men have the hunter-gatherer and rational mentality and make good surgeons. And I know most women have nurturing, maternal, and intuitive skills and make wonderful pediatricians. But the converse is true, too.

Just when you get stereotypes fixed in your head, somebody comes along who shatters your image of the way the world is or is supposed to be. . . luckily.

► Take Barbara LeTourneau, the subject of my first interview in this issue. Women aren't classically cut out for emergency room physicians. That's demanding, sometimes dangerous work. And women physicians don't rush forth and get their MBAs. Or so I thought.

► Or consider Ellen Stubbs. Women don't join a four-man group of family practitioners or tackle such intractable social issues as malpractice, day care, or what needs to be done to right social wrongs. They don't swoop down ski sloops during their time off, either. Or so I used to think.

In any event, I'm coming along

Editor's Notebook *to page 20*

New Age Woman

REECE: *Dr. LeTourneau, you're an extremely busy and active young physician with two children, a full-time career as an emergency room physician, and varied outside interests. For example, you're interested in managerial matters and have an MBA from the College of St. Thomas. How do you keep all this together?*

LETOURNEAU: I rely on my husband to do a lot of the chores of living, to do the laundry and the dishes and make sure that the kids have a clean place to play. But a lot of it has to do with self-discipline, with saying, "This is my lifestyle. I have to be here at this time." And I've sacrificed a lot of my own personal interests. I don't get to ride my horse as much as I would like. I don't get to the gym to work out as much as I would like. I don't get to read novels as much as I would like. I think that will change over the next several years, but for now that's what I've had to do to give the necessary time to my family and my career.

REECE: *Let's go into your background a little. Tell us where you grew up, where you went to school, how you got into emergency medicine.*

LETOURNEAU: From the time I was 12, I lived in the Twin Cities. I lived in Hawaii before that. I went to a private girls' school, Derham Hall, and Macalester College. I wanted to be a physician even in high school. In those little interviews they have in your yearbook, I said I wanted to do that. I thought I would go into ob/gyn because it was a good field for a woman. At Macalester I started to doubt whether I wanted to go into medicine, because the pre-med program was extremely competitive. People didn't help each other, they wouldn't let you use their notes, and I thought maybe medicine wasn't what I really wanted to do. But I applied to medical school anyway. I didn't get in the first time and worked for a year, which really shaped my personality and my ideas on what is life and what is living. When I finally did go to medical school, I didn't kill myself trying to learn everything possible, but I did learn the important things. And I tried to do a little living along the way.

REECE: *What motivated you to go into emergency medicine?*

BARBARA C. LeTOURNEAU, M.D.

LETOURNEAU: Since college, I have been interested in emergency care, in ambulances and emergency rooms, and in episodic care. I like meeting the individual. Usu-

LeTourneau *to page 51*

I have a confession to make. I became weary just listening to Barbara LeTourneau explain her schedule and fast-paced life. Among other things, this 39-year-old emergency medicine physician serves as mother of two infants (aged two and one-half years and six months), as wife (her husband, a business graduate, stays at home), as professional manager (she manages the emergency medicine group at Unity Medical Center, the Twin Cities' sixth busiest emergency unit), as a member of the Minnesota Medical Association (she's active in women's issues), and as a practicing physician (her duties demand 50 to 60 hours of her time each week). And, as if these duties were not enough, two years ago she won a coveted Bush Fellowship and acquired her Master's of Business Administration degree at the College of St. Thomas.

Where, I asked, did she get all this energy? And where did she find the time? Time, after all, is an elastic asset. You can't buy it, borrow it, save it, or make it. Well, she said, you have to be a high-energy person. And you have to know exactly what you want, go after it, and know where you're going. Besides, she added, there's never a "right time" for anything. You make time for what's important. This interview came at the right time and at an important time. For I believe the interview captures the demands and price of success for young physicians in a world of accelerating change.

Practicing Medicine in the Quiet Zone

If I were to come up with one word to describe Ellen Stubbs, that word would be "quiet."

I would not use "quiet" in the shy sense. Ellen is not shy. She looks you straight in the eye. Nor does "quiet" imply introverted. If anything, she leads an outgoing life—interacting with four associates in an East St. Paul practice, mingling with her patients, and chairing the Committee on Women Physicians at the Minnesota Medical Association. And she certainly wasn't introverted in fielding my questions. Nor does "quiet" connote passivity. During our one and one-half hours together, I didn't detect a passive bone in her body.

By quiet, I mean she quietly advocated the special needs of women physicians; I mean she was quietly persuasive in articulating the problems of all physicians—full-time malpractice rates for part-time work, lack of good day care facilities for two-career couples or single-parent physicians, insufficient income to continue to deliver babies in today's litigious climate, inadequate resources and patience to cope with demands of third-party bureaucracies; I mean the quiet determination she showed when she talked about always wanting to be a doctor; I mean her quiet dedication to her patients, to whom she has devoted 14 years of her life; and I mean the quiet calm with which she speaks in telling how she has adjusted to the transition between the old ways of practice and the new.

Take a few quiet moments to read what this remarkable physician has to say.

REECE: *Dr. Stubbs, you've been in family practice in East St. Paul for the last 14 years. In addition to that, you've been active on the Committee on Women Physicians for the Minnesota Medical Association. Indeed, you've been almost the permanent chair of that committee for the last seven years. Why don't we start by asking you your background, where you're from, and why you're practicing in St. Paul.*

STUBBS: I grew up in Michigan and went to the University of Michigan Medical School. I came to St. Paul for my residency, which I did at the old St. John's Hospital as part of the University of Minnesota family practice program, and I ended up staying here to go into practice.

REECE: *How many people are in your group?*

STUBBS: There are five of us.

REECE: *And you do primarily family practice. Do you do any deliveries?*

STUBBS: Yes, we do the whole gamut of family practice. We do deliveries and pediatrics, geriatrics, and everything in between.

REECE: *You came into medicine in the transition zone. You were trained in the old ways of medicine of independent practice and fee-for-service, and you entered practice just as the HMOs, primarily Med-Centers in your region, were cranking up. So, you trained in the old and practiced in the new. How do you feel about these changes?*

ELLEN R. STUBBS, M.D.

STUBBS: I think it's been a very busily changing scene since I started practice. When I started it was primarily fee-for-service. Now, for us, it's a mix of about between 50/50 and 60/40 HMO to private pay. There have certainly been major new scientific developments and changes in the way medicine is practiced. When I started, we'd keep a patient with an MI in the hospital for a minimum of two weeks. Now that patient's home within seven days, usually. CT scanners were just coming into the Twin Cities as I started practice. Now if your hospital doesn't have one or two you're way behind the times. Nobody had even thought of MRIs at the time I started. Now every week I send people for them.

REECE: *Malpractice rates have also soared, particularly in the obstetrics area. It must be a struggle for your group now to decide whether to deliver children or not.*

STUBBS: Yes, it's something we look at every year. So far our decision has been that we will continue

continued

doing OB, but it seems that each year we get a little closer to deciding no. It seems to be an important part of family practice for us, so we're still doing between 150 and 200 deliveries a year.

REECE: *Important in what sense? In continuity of knowing the families or . . .*

STUBBS: Yes, I think in terms of continuity it is important. I've been delivering the children of the second generation—not quite yet the children of children—that I delivered, but for families where I delivered the youngest child, I'm now delivering children of the older children.

REECE: *What is the nature of your patient population? What kind of a neighborhood are you in? Has the HMO phenomenon changed that?*

STUBBS: We're in what has primarily been a blue-collar neighborhood of mainly European background—a lot of Polish, German, some Scandinavian Eastsiders. Now, with our HMO participation, we get people from all over St. Paul as well as some who come from Minneapolis, primarily because they work closer to us. So we've gotten a much wider variation in our patient population since we've had more HMO involvement.

REECE: *You entered medicine just as the proportion of women physicians was beginning to sharply rise. What percent of your medical school classmates were women?*

STUBBS: Just over 10 percent. Now it's 30 plus, and some medical schools enroll more than 50 percent women at this point.

REECE: *Why do you think that's changing so rapidly?*

STUBBS: I think women in general are moving into more of the professional and business world. I think for a long time women saw themselves as being stuck with either nursing or teaching as the professions that were available. As medical schools became more receptive to women, and maybe as more of the men were going into the business world, women have become an increasingly larger percentage of medical school classes.

You mentioned that there were more women applicants for medical school than nursing school. I see that as a major problem confronting us, because if all the women are going into medicine and nobody is taking up nursing, patient care is going to suffer.

REECE: *Already there's a nursing shortage. Have you noticed that in your practice in any way?*

STUBBS: Yes. It's a little hard to tell from my vantage point whether it's a shortage of nurses or just inadequate hospital hiring of nurses, but it does seem that the nurses are spread a lot thinner in the hospital these days. And there are fewer nurses taking care of more and sicker patients.

There's really no good time to have a child when you're a doctor. It's difficult, but it certainly can be done.

REECE: *In your work on the MMA's Committee on Women Physicians what are the recurrent themes or issues that you discuss?*

STUBBS: There have been several issues. Initially, one of the major concerns was getting women involved in organized medicine, because women historically had been excluded from organized medicine. Along with the increase of women going into medicine, there was a decrease in the total number of people becoming involved in organized medicine. I see a need for our viewpoints to be expressed and for us to take part in the leadership of the medical profession, because I think women sometimes see things a bit differently and our input is needed.

REECE: *Do you think that's happening, that women are rising in leadership?*

STUBBS: I think it's happening very slowly. In the time that I've been involved in the MMA, we've had our first woman president, and more women are taking leadership roles on committees and on the board of the MMA. However, it appears it will take a while before women become that involved in the upper echelons of the American Medical Association. Another issue that's been of concern more recently—not just a women's issue—is the whole issue of professional liability for people who choose to practice less than full time. Whether that's a woman who's taking care of a new child, or a man who decides that he wants to do some other things besides practice medicine, it can be very difficult to get part-time professional liability.

REECE: *So if you practice part time, you still pay full-time rates?*

STUBBS: For a lot of people that's been true. Professional liability companies have not been willing, or have not yet been pressed, to make some type of part-time category that then decreases the rates to a point where you can afford to work less than full time to pay them.

REECE: *Any progress on that front?*

STUBBS: The two companies that write professional liability in Minnesota have had very little experience with it, presumably because they have not had the demand. The St. Paul Companies handles it on a case-by-case basis. There are somewhat more set policies at MMIC [Midwest Medical Insurance Company], but we'd like to see a continuation and improvement in that—which I think will benefit not only women, but men.

REECE: *Besides the malpractice rate issue, what are some other problems you discuss?*

STUBBS: Another issue of concern, again not only for women, but for men—maybe we should call it a young physicians' issue—is child care for couples where one or both of the parents work in a profession in which hours are not predictable and for which child care is often needed outside the typical eight-to-five time frame. This

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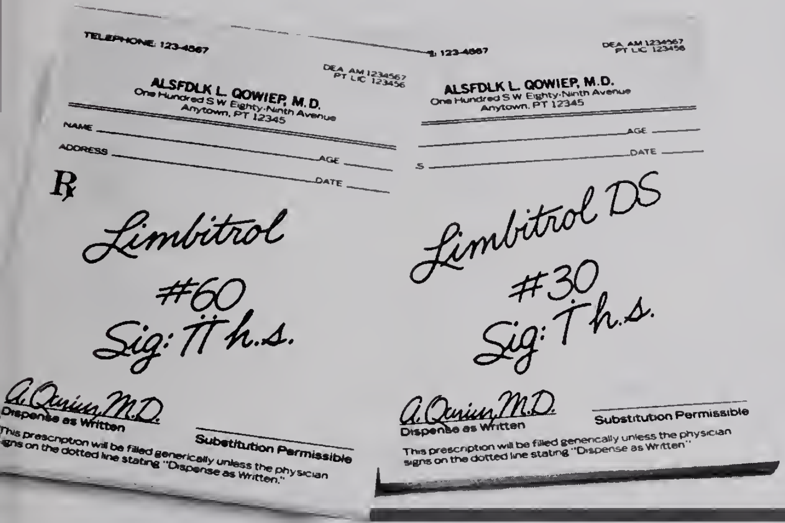

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References: 1. Data on file, Hoffmann-La Roche Inc., Nutley, NJ. **2.** Feighner VP, *et al: Psychopharmacology 61:*217-225, Mar 22, 1979.

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Before prescribing, please consult complete product information, a summary of which follows:

Contraindications: Known hypersensitivity to benzodiazepines or tricyclic antidepressants; concomitant use with MAOIs or within 14 days of monoamine oxidase inhibitors (then initiate cautiously, gradually increasing dosage until optimal response is achieved); during acute recovery phase following myocardial infarction.

Warnings: Use with caution in patients with history of urinary retention or angle-closure glaucoma. Severe constipation may occur when used with anticholinergics. Closely supervise cardiovascular patients. Arrhythmias, sinus tachycardia, prolongation of conduction time, myocardial infarction and stroke reported with tricyclic antidepressants, especially in high doses. Caution patients about possible combined effects with alcohol and other CNS depressants and against hazardous occupations requiring complete mental alertness (*e.g.,* operating machinery, driving).

***Usage in Pregnancy:* Use of minor tranquilizers during the first trimester should almost always be avoided because of increased risk of congenital malformations. Consider possibility of pregnancy when instituting therapy.**

Withdrawal symptoms of the barbiturate type have occurred after discontinuation of benzodiazepines (see Drug Abuse and Dependence).

Precautions: Use cautiously in patients with a history of seizures, in hyperthyroid patients, those on thyroid medication, patients with impaired renal or hepatic function. Because of suicidal ideation in depressed patients, do not permit easy access to large quantities of drug. Periodic liver function tests and blood counts recommended during prolonged treatment. Amitriptyline may block action of guanethidine or similar antihypertensives. When tricyclic antidepressants are used concomitantly with cimetidine (Tagamet), clinically significant effects have been reported involving delayed elimination and increasing steady-state concentrations of the tricyclic drugs. Use of Limbitrol with other psychotropic drugs has not been evaluated; sedative effects may be additive. Discontinue several days before surgery. Limit concomitant administration of ECT to essential treatment. See Warnings for precautions about pregnancy. Should not be taken during the nursing period or by children under 12. In elderly and debilitated, limit to smallest effective dosage to preclude ataxia, oversedation, confusion or anticholinergic effects. Inform patients to consult physician before increasing dose or abruptly discontinuing this drug.

Adverse Reactions: Most frequent: drowsiness, dry mouth, constipation, blurred vision, dizziness, bloating. Less frequent: vivid dreams, impotence, tremor, confusion, nasal congestion. Rare: granulocytopenia, jaundice, hepatic dysfunction. Others: many symptoms associated with depression including anorexia, fatigue, weakness, restlessness, lethargy.
Adverse reactions not reported with Limbitrol but reported with one or both components or closely related drugs: *Cardiovascular:* Hypotension, hypertension, tachycardia, palpitations, myocardial infarction, arrhythmias, heart block, stroke. *Psychiatric:* Euphoria, apprehension, poor concentration, delusions, hallucinations, hypomania, increased or decreased libido. *Neurologic:* Incoordination, ataxia, numbness, tingling and paresthesias of the extremities, extrapyramidal symptoms, syncope, changes in EEG patterns. *Anticholinergic:* Disturbance of accommodation, paralytic ileus, urinary retention, dilatation of urinary tract. *Allergic:* Skin rash, urticaria, photosensitization, edema of face and tongue, pruritus. *Hematologic:* Bone marrow depression including agranulocytosis, eosinophilia, purpura, thrombocytopenia. *Gastrointestinal:* Nausea, epigastric distress, vomiting, anorexia, stomatitis, peculiar taste, diarrhea, black tongue. *Endocrine:* Testicular swelling, gynecomastia in the male, breast enlargement, galactorrhea and minor menstrual irregularities in the female, elevation and lowering of blood sugar levels, and syndrome of inappropriate ADH (antidiuretic hormone) secretion. *Other:* Headache, weight gain or loss, increased perspiration, urinary frequency, mydriasis, jaundice, alopecia, parotid swelling.

Drug Abuse and Dependence: Withdrawal symptoms similar to those noted with barbiturates and alcohol have occurred following abrupt discontinuance of chlordiazepoxide; more severe seen after excessive doses over extended periods; milder after taking continuously at therapeutic levels for several months. Withdrawal symptoms also reported with abrupt amitriptyline discontinuation. Therefore, after extended therapy, avoid abrupt discontinuation and taper dosage. Carefully supervise addiction-prone individuals because of predisposition to habituation and dependence.

Overdosage: Immediately hospitalize patient. Treat symptomatically and supportively. I.V. administration of 1 to 3 mg physostigmine salicylate may reverse symptoms of amitriptyline poisoning. See complete product information for manifestation and treatment.

How Supplied: *Double strength (DS) Tablets,* white, film-coated, each containing 10 mg chlordiazepoxide and 25 mg amitriptyline (as the hydrochloride salt), and *Tablets,* blue, film-coated, each containing 5 mg chlordiazepoxide and 12.5 mg amitriptyline (as the hydrochloride salt)—bottles of 100 and 500; Tel-E-Dose® packages of 100; Prescription Paks of 50.

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- First-week reduction in somatic symptoms[1]

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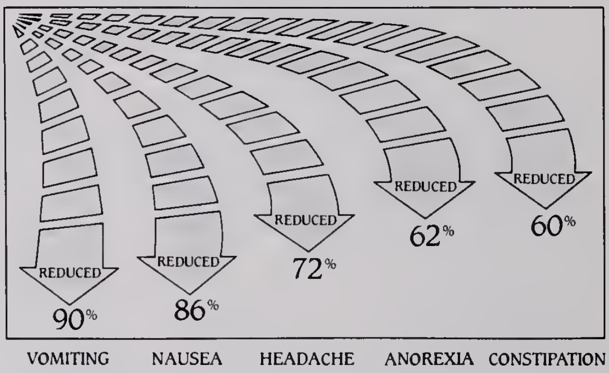
Percentage of Reduction in Individual Somatic Symptoms During First Week of Limbitrol Therapy*



*Patients often presented with more than one somatic symptom.

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Please see summary of product information inside back cover.

is not even limited to medicine. This is an issue that cuts across many parts of society.

REECE: *Many women physicians are married to fellow physicians, and it may be more intense in medicine.*

STUBBS: Yes, I think so.

REECE: *What about the issue of pregnancy and leave for women physicians? I could see where that could pose a problem during residency or within a group.*

STUBBS: Yes. There's really no good time to have a child when you're a doctor. Some women are having children during medical school. A number of women are having them during residency. It's difficult, but it certainly can be done. You have to work out a lot of things with your fellow residents or, once you're in practice, with your partners. Some groups have set pregnancy leave policies, others are determined individually. In my group, while it's something we've discussed, it's never actually come up. But it is a concern. How do you handle coverage? How long a leave can you afford to take or can your group afford for you to take? How do you work it out in terms of professional liability?

REECE: *Should a young woman physician of reproductive age explore policies before she enters a residency or joins a group?*

STUBBS: Absolutely. It's very important. If there's not a policy, then you have to work with the group to produce one. We produced a pamphlet two years ago outlining some things to look at in terms of pregnancy leave and some of the solutions that some women have worked out, or that some groups have worked out, just to offer some guidelines for women to look at as they go into practice. That's available through the MMA.

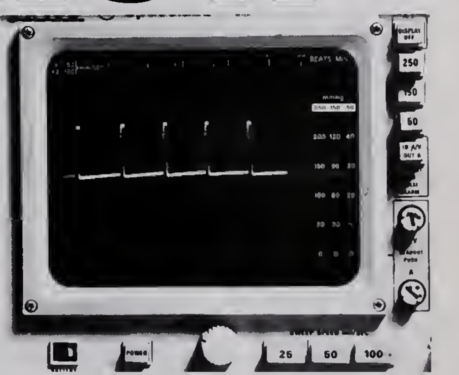
REECE: *Is there a woman's group outside of the Minnesota Medical Association?*

STUBBS: There is a group called Minnesota Women Physicians, which is primarily a social and educational group with about 200 members. We have meetings about four times a year, including one annual meeting with women lawyers and women legislators just prior to the legislative session to discuss issues related to health and women that may be coming up in that session.

REECE: *Is Minnesota a conducive place for women professionals?*

STUBBS: Yes. I think so. I think it's been hospitable to women physicians as well as women lawyers and business executives. I think a number of the larger corporations in Minnesota have been progressive in their attitudes toward women employees. My under-

Movies shown in flight.



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standing is that, generally, it's been a very good place for women to work.

REECE: *Have you found your 14 years of practice in St. Paul satisfying in most respects?*

STUBBS: Yes, I have. I find working with the patients very satisfying. Working with the paperwork, and the various and sundry payers is not always as satisfying.

REECE: *What is your principal area of frustration?*

STUBBS: It seems to be harder and harder to have just the physician and the patient involved in decision making. Physicians always have to take into consideration the payment source and whatever limitations that may place on medical care.

REECE: *I've gained the impression that you feel many of the issues we've been discussing are not strictly women's issues but professional issues that affect both genders.*

STUBBS: Yes. I think that over the last several years medicine and physicians have come under attack from a lot of different directions. There's really no room at this point for women to concentrate solely on "women's issues." I think the issues concern women, men—physicians together—as we try to care for our patients. I don't think that separation into groups by gender is really helpful at this point. ■

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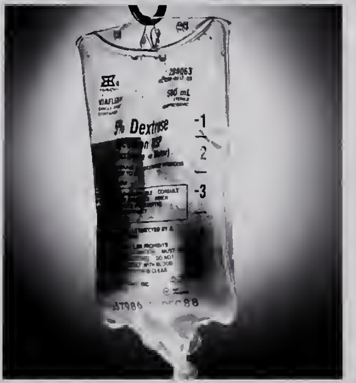

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BRIEF SUMMARY

CONTRAINDICATIONS
There are no known contraindications to the use of sucralfate.

PRECAUTIONS
Duodenal ulcer is a chronic, recurrent disease. While short-term treatment with sucralfate can result in complete healing of the ulcer, a successful course of treatment with sucralfate should not be expected to alter the post-healing frequency or severity of duodenal ulceration.

Drug Interactions: Animal studies have shown that simultaneous administration of CARAFATE (sucralfate) with tetracycline, phenytoin, digoxin, or cimetidine will result in a statistically significant reduction in the bioavailability of these agents. The bioavailability of these agents may be restored simply by separating the administration of these agents from that of CARAFATE by two hours. This interaction appears to be nonsystemic in origin, presumably resulting from these agents being bound by CARAFATE in the gastrointestinal tract. The clinical significance of these animal studies is yet to be defined. However, because of the potential of CARAFATE to alter the absorption of some drugs from the gastrointestinal tract, the separate administration of CARAFATE from that of other agents should be considered when alterations in bioavailability are felt to be critical for concomitantly administered drugs.

Carcinogenesis, Mutagenesis, Impairment of Fertility: Chronic oral toxicity studies of 24 months' duration were conducted in mice and rats at doses up to 1 gm/kg (12 times the human dose). There was no evidence of drug-related tumorigenicity. A reproduction study in rats at doses up to 38 times the human dose did not reveal any indication of fertility impairment. Mutagenicity studies were not conducted.

Pregnancy: Teratogenic effects. Pregnancy Category B. Teratogenicity studies have been performed in mice, rats, and rabbits at doses up to 50 times the human dose and have revealed no evidence of harm to the fetus due to sucralfate. There are, however, no adequate and well-controlled studies in pregnant women. Because animal reproduction studies are not always predictive of human response, this drug should be used during pregnancy only if clearly needed.

Nursing Mothers: It is not known whether this drug is excreted in human milk. Because many drugs are excreted in human milk, caution should be exercised when sucralfate is administered to a nursing woman.

Pediatric Use: Safety and effectiveness in children have not been established.

ADVERSE REACTIONS
Adverse reactions to sucralfate in clinical trials were minor and only rarely led to discontinuation of the drug. In studies involving over 2,500 patients treated with sucralfate, adverse effects were reported in 121 (4.7%).

Constipation was the most frequent complaint (2.2%). Other adverse effects, reported in no more than one of every 350 patients, were diarrhea, nausea, gastric discomfort, indigestion, dry mouth, rash, pruritus, back pain, dizziness, sleepiness, and vertigo.

OVERDOSAGE
There is no experience in humans with overdosage. Acute oral toxicity studies in animals, however, using doses up to 12 gm/kg body weight, could not find a lethal dose. Risks associated with overdosage should, therefore, be minimal.

DOSAGE AND ADMINISTRATION
The recommended adult oral dosage for duodenal ulcer is 1 gm four times a day on an empty stomach.

Antacids may be prescribed as needed for relief of pain but should not be taken within one-half hour before or after sucralfate.

While healing with sucralfate may occur during the first week or two, treatment should be continued for 4 to 8 weeks unless healing has been demonstrated by x-ray or endoscopic examination.

HOW SUPPLIED
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Reference:
1. Eliakim R, Ophir M, Rachmilewitz D: *J Clin Gastroenterol* 1987;9(4):395-399.

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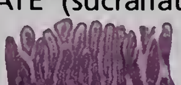
Aspirin and other nonsteroidal anti-inflammatory drugs weaken mucosal defenses, which may lead NSAID users to become prone to duodenal ulcers[1] For those NSAID users who do develop duodenal ulcers, CARAFATE® (sucralfate/Marion) is ideal first-line therapy. Carafate rebuilds mucosal  defenses through a unique, nonsystemic mode of action. Carafate enhances the body's natural healing ability while it protects damaged mucosa from further injury. So the next time you see an arthritis patient with a duodenal ulcer, prescribe nonsystemic Carafate: therapy for the ulcer-prone patient.

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Consult the package literature for prescribing information.

Indication: Lower respiratory infections, including pneumonia, caused by *Streptococcus pneumoniae, Haemophilus influenzae*, and *Streptococcus pyogenes* (group A β-hemolytic streptococci).
Contraindication: Known allergy to cephalosporins
Warnings: CECLOR SHOULD BE ADMINISTERED CAUTIOUSLY TO PENICILLIN-SENSITIVE PATIENTS PENICILLINS AND CEPHALOSPORINS SHOW PARTIAL CROSS-ALLERGENICITY POSSIBLE REACTIONS INCLUDE ANAPHYLAXIS

Administer cautiously to allergic patients.

Pseudomembranous colitis has been reported with virtually all broad-spectrum antibiotics. It must be considered in differential diagnosis of antibiotic-associated diarrhea Colon flora is altered by broad-spectrum antibiotic treatment, possibly resulting in antibiotic-associated colitis.

Precautions:
- Discontinue Ceclor in the event of allergic reactions to it.
- Prolonged use may result in overgrowth of nonsusceptible organisms.
- Positive direct Coombs' tests have been reported during treatment with cephalosporins.
- Ceclor should be administered with caution in the presence of markedly impaired renal function. Although dosage adjustments in moderate to severe renal impairment are usually not required, careful clinical observation and laboratory studies should be made.
- Broad-spectrum antibiotics should be prescribed with caution in individuals with a history of gastrointestinal disease, particularly colitis.
- Safety and effectiveness have not been determined in pregnancy, lactation, and infants less than one month old. Ceclor penetrates mother's milk. Exercise caution in prescribing for these patients.

Adverse Reactions: (percentage of patients)

Therapy-related adverse reactions are uncommon. Those reported include:
- Gastrointestinal (mostly diarrhea): 2.5%
- Symptoms of pseudomembranous colitis may appear either during or after antibiotic treatment.
- Hypersensitivity reactions (including morbilliform eruptions, pruritus, urticaria, and serum-sickness-like reactions that have included erythema multiforme [rarely, Stevens-Johnson syndrome] and toxic epidermal necrolysis or the above skin manifestations accompanied by arthritis/arthralgia, and frequently, fever): 1.5%; usually subside within a few days after cessation of therapy Serum-sickness-like reactions have been reported more frequently in children than in adults and have usually occurred during or following a second course of therapy with Ceclor. No serious sequelae have been reported Antihistamines and corticosteroids appear to enhance resolution of the syndrome
- Cases of anaphylaxis have been reported, half of which have occurred in patients with a history of penicillin allergy
- As with some penicillins and some other cephalosporins, transient hepatitis and cholestatic jaundice have been reported rarely
- Rarely, reversible hyperactivity, nervousness, insomnia, confusion, hypertonia, dizziness, and somnolence have been reported.
- Other: eosinophilia, 2%; genital pruritus or vaginitis, less than 1%, and, rarely, thrombocytopenia.

Abnormalities in laboratory results of uncertain etiology
- Slight elevations in hepatic enzymes.
- Transient fluctuations in leukocyte count (especially in infants and children).
- Abnormal urinalysis; elevations in BUN or serum creatinine
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LETTERS TO THE EDITOR

Twinges of Guilt for Neglecting St. Luke's

In the November 1988 issue of *Minnesota Medicine*, you state, "Frankly, I have twinges of guilt about neglecting North Memorial Hospital, which has a class act in trauma with high volumes, and St. Mary's Hospital in Duluth, another fine regional trauma center" (Editor's Notebook, page 659). Unfortunately, St. Mary's Hospital is not the regional trauma center. St. Luke's Hospital was designated as the regional trauma center in 1982 under the, then federal, Emergency Medical Services Act. St. Luke's Hospital is the only officially designated trauma center in Minnesota.

Dr. Mucha, in his interview in *Minnesota Medicine* on page 663, correctly identifies St. Luke's Hospital in Duluth, Minnesota, as the regional trauma center. I support Dr. Mucha's hope of a comprehensive trauma care system throughout the state. This will probably only come about through state or federal legislation and I look forward to this in the future.

Finally, I wanted to let you know I have enjoyed your editorials in *Minnesota Medicine* over the years. They are usually quite interesting and thought provoking.

With best wishes in the future.

Charles L. Barbee, M.D.
Duluth, Minnesota

I wish to comment on your editorial concerning "A Traumatic Week for Minnesota." I feel that you should have more than "twinges of guilt" about neglecting North Memorial Hospital, which has a class act in trauma with high volumes, and certainly your mentioning St. Mary's Hospital in Duluth, "another fine regional trauma center." I wish to notify you that St. Mary's Hospital is not the regional trauma center for northwest Wisconsin and northeast Minnesota but rather that St. Luke's is the regional trauma center and has been so, with a trauma program going back to 1975. We were the first nationally designated class II trauma center in the United States and have had a smoothly functioning regional trauma center since that time.

Our system is unique in that it is in a private hospital setting with all of the general surgeons in town willingly alternating calls to support the trauma center. Not only do the surgeons, but also the anesthesiologists, as well as all the ancillary services of the hospital, participate in the program to make it a success. I think all of us at St. Luke's who have worked so hard in establishing this program certainly feel slighted in your not mentioning St. Luke's Hospital as the regional trauma center in the northeast Minnesota and northwest Wisconsin area.

Bart S. Cuderman, M.D.
Director, Regional Trauma Center
St. Luke's Hospital
Duluth, Minnesota

We Stand Corrected

Your October 1988 issue of *Minnesota Medicine*, including its interview with Dr. Hitchcock, is memorable. E. T. Bell was also my teacher, a man of exceptional inspiration.

Because pathology is an exacting science, please correct your files for ensuing generations by noting that the deceased pathologist's first name was not Alexis, but Elexious; thus, Elexious Thomas Bell. All good wishes.

J. B. Friberg, M.D.
Minneapolis, Minnesota

Make-A-Wish Minnesota

Make-A-Wish Foundation of Minnesota has been in existence for over six years. Every physician who deals with patients under 18 years of age should know and understand the guidelines of this wonderful organization.

Run by a volunteer board, the foundation's sole purpose is to grant a special wish of children between four and 18 years who have been diagnosed with an illness that is terminal or sufficiently life threatening, and who in all probability won't survive until their 18th birthday. There are no other criteria. What we do is make a special dream come true. It may be a trip to Disneyworld, a special purchase, a reuniting of family members, or a hero's welcome on the turf of the Metrodome. Whatever we determine to be the child's true wish is what we set out to accomplish. No red tape and no tough questions. Financial status is not a factor, but we are not a funding agency. However, we can't make it happen without your help and cooperation. We require your confirmation of diagnosis, prognosis, and approval of the child's ability to handle his or her request. We also need you to let the families know we're here and available.

We have granted more than 250

of these special wishes, and many of these kids have rallied from their disease because of the emotional lift provided. You provide the medical therapy, and we will provide the magic.

Help us fulfill our dream of complete public awareness so that no child will be denied the opportunity of a wish come true. Have them call us!

Karla Blomberg, President
Donald Ritchie, M.D., Advisory Board
Make-A-Wish Foundation of Minnesota
5155 East River Road, Suite 402
Minneapolis, Minnesota 55421
(612) 571-WISH

A Traumatic Omission

It was a traumatic experience for me to read your November Editor's Notebook in *Minnesota Medicine*. I was pleased to see the November issue devoted to emergency medicine, but I was shocked to see our facility missing from the list of Top Ten Twin Cities Hospital Emergency Departments. Unity Medical Center should have been listed in the sixth position with volumes as listed below:

1984	1985	1986	1987
27,282	27,484	29,575	30,040

Unity Medical Center and Mercy Hospital are "sister" hospitals located only a few miles apart. We are both Health One hospitals, and both emergency departments are staffed by EPPA (Emergency Physicians, P.A.) physicians. It is interesting to note that our combined annual volume for 1987 is 58,605 patients. This combined volume exceeds that of North Memorial and closely approaches that of Ramsey Medical Center. Although we are apparently unknown to your publication, we do provide quality emergency care to large numbers of patients.

Rudy Thell, M.D., FACEP
Staff Physician
Emergency Department

Editor's Notebook

from page 7

in my sensitivity training, or perhaps I'm just regressing to my kindergarten days. In this issue, I've progressed enough to have a feature article on the perils of pregnancy in residency and to interview two women physicians. If this keeps up, I may even embrace the new definition of macho: jogging home after your vasectomy. ■

References

1. Fulghum R: All I Really Need to Know I Learned in Kindergarten. Villard Books, a Division of Random House, New York, 1988.
2. Mills, Q: Not Like Our Parents. William Morrow & Company, Inc., New York, 1987.

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Can Health Care Inflation be Controlled?

Seymour Handler, M.D.

Much has been written about health care cost inflation. Experts writing in such eminent medical publications as *The Wall Street Journal* and *The Ladies Home Journal* offer convincing explanations of medical inflation, generally interpreting the problem in a narrow vein. Politicians and bureaucrats not friendly to organized medicine describe health care inflation as simply a matter of physician greed. Naturally, some greed exists, because physicians as a group include greedy individuals—the same as any other group in society. However, the biggest contributing factor to health inflation is "medical progress."

The burgeoning of medical technology in diagnostic procedures and therapy inherently includes sophisticated equipment, facilities, and methodology, which are expensive. When diagnostic radiology is expanded from a simple chest X-ray to CT scan of the thorax, cost is escalated by a factor of 10 or more. When cardiology "progresses" from prescribing nitroglycerine and digitalis for coronary heart disease to coronary angioplasty and bypass surgery, who could deny that costs are dramatically increased? When pulmonary diagnosis "progresses" from the history and physical and from blowing out a match to sophisticated pulmonary function testing, fiberoptic bronchoscopy, and pleural biopsies, the activity certainly costs more. And when gastroenterologists sclerose bleeding esophageal varices and perform impressive retrograde endoscopic visualization of the pancreatic and biliary ducts, you can damn well believe that it costs more than palpating the abdomen and measuring serum bilirubin (which they have already done—I hope). And finally, when oncologists obtain long-term survival or a cure for a young man with disseminated testicular cancer, even though it costs more, it certainly is an impressive and worthwhile accomplishment and an obvious yield of "medical progress."

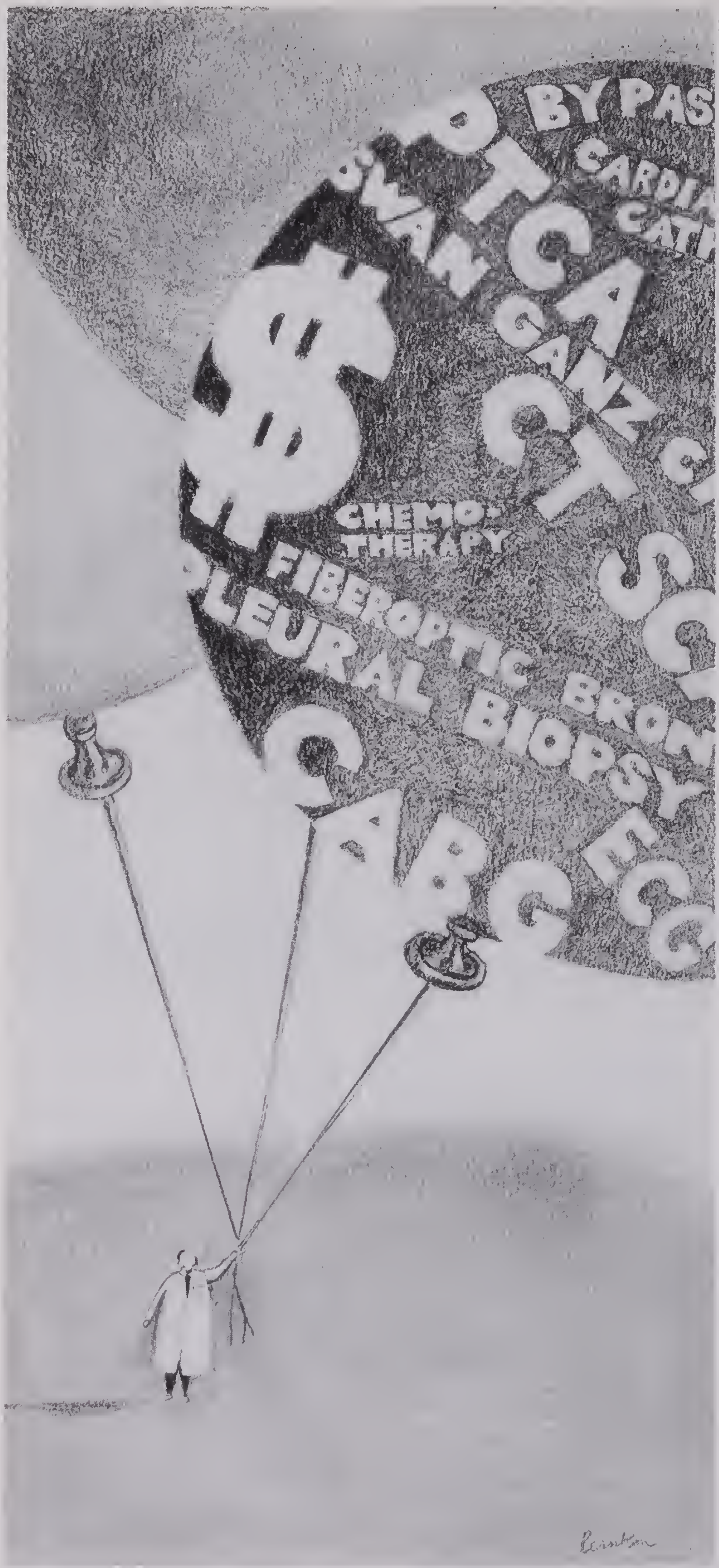
The biggest contributing factor to health inflation is "medical progress."

Indeed, any of the many complex innovations common to modern medicine are significant advances in patient care and outcomes. Although they are expensive, the results are frequently gratifying to patient and physician alike, and "progress" appropriately should and will continue. The public will demand "medical progress," and despite the increased cost, when their individual health is in question, the attitude of patients usually is, "Doc, spare nothing!" As we have seen, the doctor spares nothing, and that's the way it has to be. Unfortunately, accompanying what I consider true "medical progress" for a number of diseases is an extrapolation of medical technology into medical problems where simple and much less expensive approaches would do equally as well. Another area of excessive activity exists in hopeless medical situations where a bad outcome is expected no matter what is done. Here are areas where health care cost inflation could be modified, and without compromise to patient care. Unfortunately, this involves selectivity of diagnostic and therapeutic approaches, returning less income to the physician. Let me suggest a few places where such excesses are the rule, and I apologize to any specialist who is offended because I have excluded him or her.

High on any list of medical excesses are the various GI endoscopic procedures, the numbers of which have increased dramatically in the past 10 or 15 years. Although the American Gastroenterological Association (AGA) would take exception, has the health of the country been measurably improved by every tummy ache being examined by direct vision? How is an ulcer improved by looking at it? Does every young person with heartburn require endoscopy and biopsy of the mucosa of the GI junction? Wouldn't some Tagamet and watchful waiting work as well? I know, you have to rule out cancer. But when a young person has burning in the stomach relieved by antacids, wouldn't it almost always (99.99 percent of the time) work just as well to treat without endoscopy? If justification for endoscopy is defined by the AGA, isn't that a little like the fox guarding the chicken coop?

Not to be outdone are cardiologists and cardiovascular surgeons, working hand in hand, dividing up handsome fees for CABG surgery and PTCAs (you know the abbreviations as well as I). I find it fascinating to see the clever arrangements

continued



KATHLEEN BERNTSON

extant between these two medical and surgical specialties dividing a large pie. "If I can't do PTCA, then you can do CABG." This is not to suggest that these procedures are not significant advances in the care of symptomatic coronary heart disease. They are. However, as was emphasized in a recent *Journal of the American Medical Association* review of indications for invasive coronary disease intervention, a significant number of cases do not pass nationally accepted indications. The reasons for these cases lacking accepted indications are clear to me: The physicians are rewarded too well for their efforts, and the indications are therefore stretched (*JAMA*, July 22/29, 1988.)

I am comfortably convinced that if reimbursement were less rewarding for the newly introduced procedures, one heck of a lot fewer would be performed.

Although impressive advances in cancer chemotherapy and radiation therapy have occurred in recent years, the accomplishments are frequently overstated (by physicians and the media), and the public has generally been sold a bill of goods. Excellent reviews of oncology have concluded that the convincing yield of oncology chemotherapy has been in the small group of tumors in young people, those cancers of embryonic origin. The vast majority of visceral cancers in older people show minimal and unpredictable clinical responsiveness to therapy; morbidity and expense are increased with little to show for it. Still, most disseminated cancers receive chemotherapy even though honest oncologists know they are accomplishing very little. The strongest justification I hear is "You've got to do something" or "If I don't give chemotherapy, someone else will." The "response rates" that oncologists like to quote are frequently minor radiologic changes unrelated to patient symptomatic improvement. Radiation therapists, with notable exceptions, pretty much treat any cancer that comes along, whether or not they believe significant improvement will occur.

Mammography, widely promoted by radiologists as a useful test to detect breast cancer at an early stage, is an interesting study of medical economics. Although mammography is capable of early detection of small breast cancers, the number of women who may be saved (the recent Malmo, Sweden, study creates doubt about the value of mammography in reducing breast cancer mortality in younger women) by early detection is modest as compared with the expense of universal screening. Can you imagine what health care would cost if *every* woman would have an annual mammogram when she reached 40 or 50 years? We may cure a few more breast cancers, but we would break the bank. We would have to double the number of radiologists reading the grams and dramatically increase work for general surgeons and pathologists involved in the increased number of breast biopsies. Don't misunderstand me; I support the concept of mammography. I just wonder if we can afford it, considering the yield.

Are the above excesses documented? Indeed they are. A recent study by the Physician Payment Review Committee, a function of Medicare, described some impressive increases in the incidence of diagnostic procedures. ECGs, echocardiography, and cardiac stress tests doubled in four years; colonoscopies increased 121 percent; sigmoidoscopies increased 216 percent, at the expense of the less expensive proctoscopy; cardiac catheterization increased 85 percent; and gastroscopy increased 43 percent. In addition to the dramatic increase in the numbers of procedures, the committee reported that Medicare payments to gastroenterologists increased 73 percent in four years; ophthalmologist payments increased 57 percent; cardiologist payments increased 49 percent. Can we justify this level of activity and cost? We could, but only if our patient population is afflicted with a whole new series of diseases and patient outcomes dramatically improve. You can decide as well as I if that is the case.

At this point I have succeeded in offending my few remaining friends in medicine. What can we do to rectify some of the excesses described above? The most obvious solution is to make the reimbursement formulas for much modern medical busywork less generous. I am comfortably convinced that if reimbursement (even with discounts) were less rewarding for the newly introduced procedures, one heck of a lot fewer would be performed. Who sets the fee schedules? The parent organization representing these various specialties—and you can rest assured that the professional organizations recommend generous fees for each newly introduced diagnostic or therapeutic innovation. That's why inserting Swan-Ganz catheters and arterial lines by cardiologists is so highly regarded. I can understand why gastroenterologists (or the colorectal surgeons) are so willing to peruse the full length of someone's colon, breathing noxious fumes, but comfortable in anticipation of the generous Aware Gold compensation they will receive for their efforts. Perhaps if the specialist earned the same whether he did or did not perform the endoscopy or whatever, simply taking care of the patients in simple and practical old-fashioned bedside cognitive medicine, fewer procedures would be done. Would less be worse? I doubt it. If we look at the English system, despite all its shortcomings, a lot less busywork is done, and you would be hard put to demonstrate that the health of the people is compromised. Or, if straight salaries are not your cup of tea (nor mine), why not at least modify the gross discrepancies evident in reimbursement between cognitive care and procedures so that thinking and caring doctors are better rewarded, while the procedure-oriented physicians are paid less.

If modern care involves the introduction of sophisticated technological innovations that inherently increase costs, and if at the same time, little concern is expressed for the yield of the new procedures, all we can expect is more inflation.

I recognize that much of the above is not pleasant reading for several specialists included in my analysis of health care cost inflation. The views expressed, I hope, address that part of health inflation that is directly a result of physician decision making. If modern care involves the introduction of sophisticated technological innovations that inherently increase costs, and if at the same time, little concern is expressed for the yield of the new procedures, all we can expect is more inflation. At some point, the escalating cost will attract outside interests who will come down on medicine with a heavy foot. If such intervention is to be avoided, physicians should openly and honestly address some of the cost factors I have enumerated and see if they can be corrected or modified.

Seymour Handler is chief of pathology at North Memorial Medical Center in Robbinsdale and an assistant professor in the Department of Laboratory Medicine and Pathology at the University of Minnesota.

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Pregnancy & RESIDENCY

Are the Demands too Great?

Miriam K. Feldman

During most residencies, the shifts are too long, the nights too short, and meals are something you wolf down on the run. So what happens when you mix pregnancy with residency?

Illustrations by Gail Swanlund

When Susan R. Wynn finished her pediatrics residency four years ago, everything went like clockwork. She turned in her beeper at noon on a Friday, went into labor at 4 a.m., and delivered a healthy, 8.9-pound boy the next day. Then she took a three-month maternity leave before starting an allergy fellowship at Mayo Clinic.

Wynn's second child was born at a similarly convenient time, during the hiatus between her allergy training and the start of a private medical practice in Fort Worth, Texas. This time she was in the enviable, and unusual, position of being able to take off seven months.

Wynn planned her pregnancies, but she recognizes that luck also played a part in their perfect timing. "The reality of it is, mother nature doesn't always cooperate," she said in a telephone interview. "I said I want a baby December 1988, and it worked. It does not always work for most people," said the allergist, who is a former member of the Minnesota Medical Association (MMA) Board of Trustees.

Today an unprecedented number of medical school graduates—nearly one-third—are women, and many of them are having babies during their residency training. The issue on everybody's mind, says Wynn, is whether it's a good idea to have a baby at all during residency. "The verdict is still out on that."

Yet two-thirds of women physicians have children at some point in their career—many of them during their residency training, according to a 1984 American Medical Association (AMA) survey. Not all of them sail through their residency and pregnancy as smoothly as Wynn.

Women bearing children during their residencies endure the same stresses that the training puts on their fellow residents. They typically work 90-hour weeks, including rotations in which they are on call two or three nights a week. The chronic fatigue that plagues most residents especially can take a toll on a pregnant woman. Yet, according to a survey published in the *New England Journal of Medicine*, nearly two-thirds of pregnant residents take no time off prior to delivery, and a third are back on the job less than eight weeks after delivery.

That survey, conducted by members of the Harvard Medical School, found that four-fifths of the residency programs have no maternity leave policy at all. That means most women residents must arrange a leave, often borrowing from the limited sick leave and vacation time allotted to all residents. The authors recommend three-month maternity leaves and more flexibility in training programs.

But that's an ideal. "So much is on a case by case basis," says Linda Shriro Schenck, M.D., president of Minnesota Women Physicians. "It depends on the benevolence of your department chairman." Schenck argues that it would be in the interest of all physicians if more formalized leave policies were established. As it is, "there's almost no provision for anything other than a minor cold."

It's not that easy to arrange long-term leave for residents, says Terry Rosborough, M.D., director of medical education and program director of the internal medicine resident program at Abbott Northwestern Hospital, a large teaching hospital in Minneapolis. "What happens while they're gone? That's where everyone else gets affected. It is a major inconvenience for the other people," Rosborough explains.

Half of the 36 residents in Rosborough's program are women, and, next year, three of them will be on maternity leave. He didn't have any trouble finding other residents to cover for those on leave, but the ones doing the covering are going to be working harder.

There are other issues as well. Residents in internal medicine are allowed three months off during their three-year training. They must make up any other absence beyond that. Thus, like Susan Wynn, many women will work until they go into labor, saving up their leave time to be with the baby. But the stresses of the training program can complicate a pregnancy.

Laurel Ferris, a consultant to medical groups on issues such as stress and the resident, says that many residents take terrible care of themselves during pregnancy. "They don't want to stand out," she says, so they endure the physical strain of their training, at a time when their bodies demand more care.

The outcome can be tragic. Wynn recalls two first-year residents who worked 90 hours or more a week. "They both delivered about 12 weeks early and lost their babies." As the *American Journal of Obstetrics and Gynecology* reported last year, ". . . residency training with its 80- to 120-hour weeks may be associated with adverse pregnancy outcome. . . ." The authors reported that infants born to residents were 7.5 times more likely to be growth retarded than those born outside a residency. More than two-thirds of the respondents—all of whom were residents in obstetrics and gynecology (and presumably should know better)—reported that they did not follow the nutritional and rest guidelines they recommend to others.

"My personal opinion is that a lot of women physicians are conforming in a male world. They want to be physicians more than anything else. They don't want to rock the boat. They are loners, used to keeping problems to themselves," says Wynn, who chairs the AMA Women in Medicine Project.

In 1984, she was a member of the AMA Ad Hoc Committee on Women Physicians in Organized Medicine—a group that produced a 21-page report, "Maternity Leave for Residents."

The 1984 AMA report recommended:

- Advising residency program directors to review federal maternity leave law, because pregnant residents must be allowed the same sick leave or disability leave as other residents who are ill or disabled.
- The woman's physician should determine the length of disability leave.
- Program directors should consider issues such as whether the leave comes out of sick and vacation time, is paid or unpaid, carries insurance benefits, and whether there will be make-up time for board certification.
- All residency programs should have a written policy on maternity and paternity leave for residents.

Wynn may follow up that survey to see what has happened to childbearing policies in residency programs in the past five years. "I see a very disturbing trend in the absence of policies coming down the road—not allowing women to take a maternity leave of any length," she says.

When policies are articulated, they tend to be minimal and somewhat restrictive. She cited the residency committee for pediatrics, which has stated that a resident can miss three months during three years, including vacation time.

Some time off for maternity leave does not have to interfere with the education of residents, Wynn says. "I have a hard time seeing how taking a couple of extra weeks will affect how good a doctor you will be. Why does it take 33 months to be a pediatrician and 34½ to be an anesthesiologist?

Maternity Benefits in Minnesota

Miriam K. Feldman

A survey of the four residency programs in Minnesota reveals that while residents who train in this state can count on some kind of maternity leave, the terms of that leave will vary greatly. Women who need time off to have a baby are offered everything from the use of personal leave time to six weeks off with pay.

Mayo Clinic, which trains 900 residents annually, has the most straightforward of all the leave policies. Residents are treated the same as all employees and are given six weeks off with pay.

Residents are not always treated as employees, however, and that can affect their ability to draw disability insurance. For example, the University of Minnesota's 1,200 residents are classified as trainees, which means the University is not obligated, under state statutes, to pay them disability insurance. (Pregnancy is considered a disability under federal law, so if disability insurance is offered by an employer, a pregnant employee is entitled to disability benefits.)

The University, which trains residents at its hospital and has affiliation agreements with other hospitals in the area, allows the biological mother to take two weeks off with pay, upon the birth of the baby. Any other time off is at the discretion of the program director. A request for leave is "nearly always honored, but it isn't automatic," explained James C. Nelson, senior administrative director at the University's medical school.

Technically, the 36 residents in internal medicine at Abbott Northwestern Hospital are not employees; however, the program's director, Terry Rosborough, M.D., treats them as employees for benefit purposes. Therefore, Abbott's residents are entitled to disability pay, which kicks in after they have been medically disabled for one month. The disability insurance is in effect until the woman's physician says she is able to return to work. (Six weeks following delivery is considered standard recovery time for an uncomplicated, vaginal delivery.) Residents may apply their vacation time to the leave, so it is possible, according to Rosborough, to combine their paid vacation with disability insurance, and have six weeks off with pay. Residents work out the term of their leave with Rosborough (see related story).

At Duluth Family Practice Center, which trains 24 residents each year, maternity and paternity leave fall under the general leave of absence policy. Residents may use their paid vacation time—two weeks the first year, three weeks after that—for maternity or paternity leave. Any time off beyond that is without pay and at the discretion of the program director.

How One Program Manages

Miriam K. Feldman

Half of the 36 residents in Dr. Terry Rosborough's residency program in internal medicine are women. Three of them are having babies this year.

When these women go on maternity leave, other residents have to fill in for them. As Rosborough puts it: "It's not the kind of position where you go out and you get a temporary. That's a no-can-do. So inevitably other people have to pick up the extra work."

Rearranging schedules to cover for residents on leave can take weeks of negotiation, says Rosborough, who is director of medical education and program director, internal medicine residency training at Abbott Northwestern Hospital. Nevertheless, he is philosophical about the situation. With the number of female medical students about equal to males, someone is likely to be pregnant, or on leave, at any given time. "The fact that there are going to be so many women in medicine just means that it is going to happen and you have to accommodate them," he says. "You have to figure out how to make it work. I didn't say it was easy. I didn't say that the prices that everybody has to pay, day in and day out, are necessarily pleasant. But, [at] an intellectual and emotional level, I think you have to support it."

Typically, the price is paid in terms of extra work. Residents put in longer hours and lose sleep, but in one recent case, as Rosborough points out, "it was a shared burden by the whole group, for the benefit of one. And it worked . . . And there was not a lot of moaning and groaning going on."

Rosborough, himself, is covering for a faculty member who is on a three-month maternity leave. "I'm having days now when I really wish that I had less to do," he says. But he calls the effort "a labor of love," explaining that the person he's covering for is important to the program, and he wants to support her decision to have a child.

Anecdotal evidence suggests that Rosborough's willingness to balance the needs of his pregnant residents with the interests of the others is not typical. In fact, Connie Hernandez, a first-year resident who had a baby just a few months after starting the training program, says one reason she chose Abbott was because of its reputation for fairness. "[Abbott] was a place you could be a person as well as a resident. I knew that wasn't true at other places."

Hernandez recalls that medical school friends who interviewed for internships while pregnant were not always encouraged to join certain programs. "It was never said, '[We can't take you] because you're pregnant.' " Reactions were more subtle than that, she says. More often, her friends were told, "Gee, I'm just not sure that you're the right person for the program."

Conventional wisdom says to avoid getting pregnant during the first year of residency, because it's the year with the greatest work load and number of hours.

Cindy Bank, a third-year resident in Rosborough's program, who had to go on leave several months early because of a complicated pregnancy, once encountered more overt hostility to the idea of childbearing during the residency years. She interviewed at one program where women were told not to get pregnant "because he [the program director] wanted 100 percent of our energies," she recalls.

"I thought that was ridiculous," Bank says. She and her husband plan to have several children and did not want to postpone starting their family forever. Bank, who is 30, says that taking a leave in her third year is ideal because she's not on call, so nobody is inconvenienced by her absence. She will make up the lost time next year when she is a chief resident.

For Hernandez, the situation was not as simple. She was six months pregnant when she started the training program, and had hoped to work until delivery and then take a standard six-week leave. But just five weeks into the program she developed toxemia and had to go on leave—eight weeks early.

Conventional wisdom says to avoid getting pregnant during the first year of residency, because it's the year with the greatest work load and number of hours. Yet Hernandez ignored convention, in part because of a miscarriage she had had during her last year of medical school. "We just decided we wanted the baby enough, so we decided to go ahead with it."

Hernandez admits that she worried about peer reaction to her absence, especially since she was out longer than planned. "I was really concerned about that. Am I going to be the one that all the others hate?" Yet, she says, the group was supportive, and she received many reassuring calls to let her know that things were going well. "I know if I were at other places in town, they'd be kicking their desks and wishing they'd never chosen me," she says.

For both Hernandez and Bank, the decision to have a baby during residency reflects the fulfillment of both biological and personal needs. It's a decision that's likely to be made by more and more residents in the future. As Bank puts it, by the time a person becomes a resident, "you're getting to a point where you have to put your personal life in some perspective."

Of course, it's possible to have too many residents out at one time, Rosborough concedes. If two or three are out in one group, "suddenly your ability to stretch the system and cover would be outstripped." So far, that hasn't happened in his program. And as he sees it, "You have to support women becoming pregnant. You know that it's coming, so you'd better then be creative and positive in trying to figure out solutions."

I think a lot is arbitrary."

It may be arbitrary, says Rosborough, but "the key is that we require everyone to jump the same hurdles." The length of each residency is determined by specialty boards, and the time must be completed to be eligible for board certification. "It is a privilege to become board certified, not a right," he insists.

Wynn does not suggest that residency programs relax their standards to accommodate women. In fact, the 1984 report found that most women did not reduce their work hours or modify their rotation schedule. But, like the AMA report, she urges flexibility. "The ideal," says Wynn, "is to have every residency program in the U.S. have a plan to accommodate the special needs of pregnant residents." She believes women should have up to three months off without jeopardizing their place in the program or eligibility for board certification.

Similarly, the report, which found that ob/gyn residents did not follow their own advice, recommended modifications in residency programs, including more time off and light duty, such as electives and no call, during the latter half of the pregnancy.

Susan Wynn did just that. "I planned the rough months when I thought I'd be at my best." During the second trimester of her pregnancy, she worked 90-hour weeks, with two to three nights a week on call in the hospital. But during her third trimester she chose a specialty elective, allowing her to work 9-to-5, which, "by residency standards, was luxurious," she says.

Wynn is in the midst of a study with two other physicians at the Mayo Clinic to determine the impact residency has on the mother and infant. The study compares women residents with a group of professionals of the same age, who work similar hours, but are not exposed to radiation and infectious agents. The study also compares residents to nurses—a group that works fewer hours, but is similarly exposed.

"All of the data in the literature about work and its effect on pregnancy consider 40 hours a week

Not All Programs Offer Parental Leave

Miriam K. Feldman

"I would probably go as far as to say that it would be a good idea to postpone pregnancy during residency," says Susan R. Wynn, M.D. "If you can wait, my feeling is to wait," says the chairman of the AMA's Women in Medicine Project, who recently completed a fellowship at Mayo Clinic and now is an allergist in private practice in Fort Worth, Texas.

The reality is that many female residents—women typically at the peak of their childbearing years—don't wait. A 1984 AMA survey found that nearly half of all women questioned had their first child, and one quarter had their second child, during residency training. That situation is not likely to change, particularly now that 50 percent of medical school students are female.

Yet according to a 1987 Survey of Graduate Medical Education Programs, there are no guarantees of time off—six weeks is considered standard—for many of the residents who decide to go ahead and have a child during their training. One-fourth of the nearly 5,800 residency programs responding to that AMA survey said they do not have a maternity leave policy.

A resident who has a child while she's training in a program that has no stated maternity leave policy is subject to the whim of her program director, who may or may not by sympathetic to her need for time off. And sometimes the director is not. One AMA spokesperson referred to the "horror stories"—the tales of residents who are not asked back after the baby is born. "It all gets tied up with, 'Have you completed this year successfully?' If you've missed six weeks, the program director can say, 'No,' and the resident is not invited back. There are a lot of gray areas in the leeway that program directors have in evaluating residents," the spokesperson said. It can happen to men, too, she added, but "it does hit women who are pregnant."

To prevent any further "horror stories" from arising, the AMA recently asked the Accreditation Council for Graduate Medical Education (ACGME) to amend Section 5.3.2 of the "General Essentials of Accredited Residencies" to include information on maternity and paternity leave in resident contracts. The amendment would not require parental leave; it merely asks that residency programs clearly state leave policy in the resident's contract, if such a policy exists. As Wynn puts it: "It will not ensure that people may have a maternity leave—just that something has to be stated up front." Wynn, who advocates six weeks of paid maternity leave for residents, says the proposal is the least that can be done to protect residents.

Nevertheless, the proposed amendment failed to pass last September, when the Association of American Medical Colleges, one of the five parent member organizations of the ACGME, voted against it, and offered a counterproposal in its place.

Wynn said it's a tragedy that the AMA's parental leave amendment was not adopted. However, according to the AMA, "It's not dead. There's an objection to it, and it may be worked out by consensus." The issue will not be taken up again until March.

full time," Wynn said. "That's vacation compared to what most residents do."

Pearl Rosenberg, assistant dean of student affairs for the University of Minnesota's Medical School, sees two issues emerging: how the department will handle the pregnancy, and how the resident will.

Rosenberg advises students never to try to have a baby during the first year of residency. That doesn't always work out, she concedes. If they do become pregnant, she advises them to put off their program for a year. "That's something you have to negotiate," she says, "but it discombobulates no one."

Having a baby during the first year of residency is difficult, Rosborough agrees. "There are people who believe the pregnancy should be postponed until the third year. It's easier on the resident and on the scheduling. That first year in most programs is more rigorous."

Flexibility is possible, he says, but within limits. In the second-year schedule, for example, a third of the time is off the ward. It's possible, with adequate planning, to shift around a block of time like that to accommodate a resident.

But, he insists, "It's a mistake to paint this as too rosy—that it's easy. It isn't like a teacher who can get a long-term substitute. You don't have that option in a residency program. You don't have a substitute."

For Wynn it all comes down to what she calls a "quality of life" issue. Leave policies could have a beneficial impact on all residents—including those who become ill during their training. "You don't want to compromise the quality of the education, but you also don't want to compromise the quality of life." ■

Miriam Feldman is a Minneapolis freelance writer who specializes in the health sciences. She is a frequent contributor to Minnesota Medicine.

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Pericardial Effusion Complicating Acute Myocardial Infarction

Margaret M. Beahrs, M.D., Ronald H. Dietzman, M.D., and Jesse E. Edwards, M.D.

The acute fibrinous pericarditis that complicates acute myocardial infarction is usually of no functional significance. Uncommonly, hemorrhagic effusion may compound this process. In the case reported here, the pericardial aspect of acute lateral myocardial infarction dominated the clinical picture, thus posing a diagnostic problem. This phase of the disease stimulates us to place it on record.

Clinical Features

On November 28, 1981, a 39-year-old man was admitted to United Hospital, St. Paul. His chief complaint was shortness of breath and fever that had persisted for three days. These symptoms were associated with generalized aching, malaise, and cough. The patient also complained of pain in the right chest and substernally, which was worse when he was lying down. His wife and two children had recently had upper respiratory infections, and he felt that his illness started off as a "cold" similar to theirs.

The patient's medical history included hypertension, adult-onset diabetes, and heavy smoking. He had undergone tympanoplasty with myringotomy two months earlier for recurrent upper respiratory infections and ear infections. An elevated white count of unknown etiology also had been detected in the past; a bone marrow examination at the time was nondiagnostic.

The family history included coronary atherosclerotic heart disease in the patient's father, who had undergone saphenous vein bypass grafting with a good postoperative result. The patient's mother had died from Hodgkin's disease.

Physical examination of the patient revealed a blood pressure of 116/90 mm/Hg in both arms without pulsus paradoxus. His oral temperature was 102.4° F. Heart rate was 110. Cardiac examination revealed a pericardial rub when the patient was in a sitting position; the findings were otherwise unremarkable. The liver was mildly tender. The electrocardiogram showed normal sinus rhythm with diffuse ST segment elevations in several limb and precordial leads (Figure 1). A chest X-ray revealed mild cardiac enlargement with slight infiltrates in both bases (Figure 2).

The clinical impression at the time was that the patient had acute pneumonitis with associated pericarditis and possibly pericardial effusion. An echocardiogram performed on December 1 did show a moderate pericardial effusion.

On December 2, the patient experienced a near-syncopal episode while ambulating. His blood pressure was found to be 95/68 mm/Hg, and the pericardial rub was not audible. He was transferred to the coronary care unit for further diagnostic and therapeutic measures. At that point, the patient was diaphoretic and tachypneic sitting upright in bed. The jugular venous pressure was elevated to 20 cm of water total by physical examination, with no visible "A" or "V" waves. Marked pulsus paradoxus was palpable at the radial artery but was not audible because of a very narrow pulse pressure. The cardiac enzyme findings and other laboratory data are contained in the table.

The clinical diagnosis now was cardiac tamponade, probably secondary to viral pericarditis. Accordingly, pericardiocentesis was attempted. Sanguineous, viscous, nonclotting pericardial fluid was encountered. Only 50 cc were obtained and sent for cultures, chemistries, cell count, and pro-

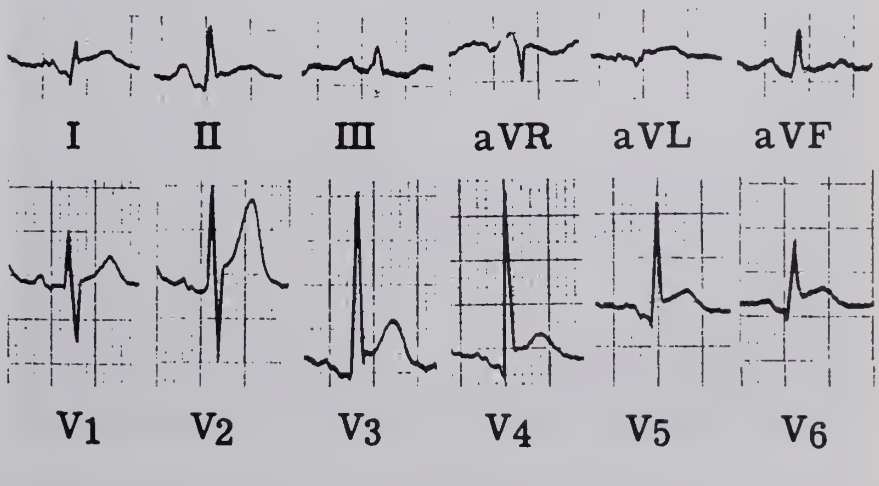

FIGURE 1 - Electrocardiogram from November 28, 1981. Note diffuse ST segment elevation in leads I, II, aVL, aVF, V1-V6.

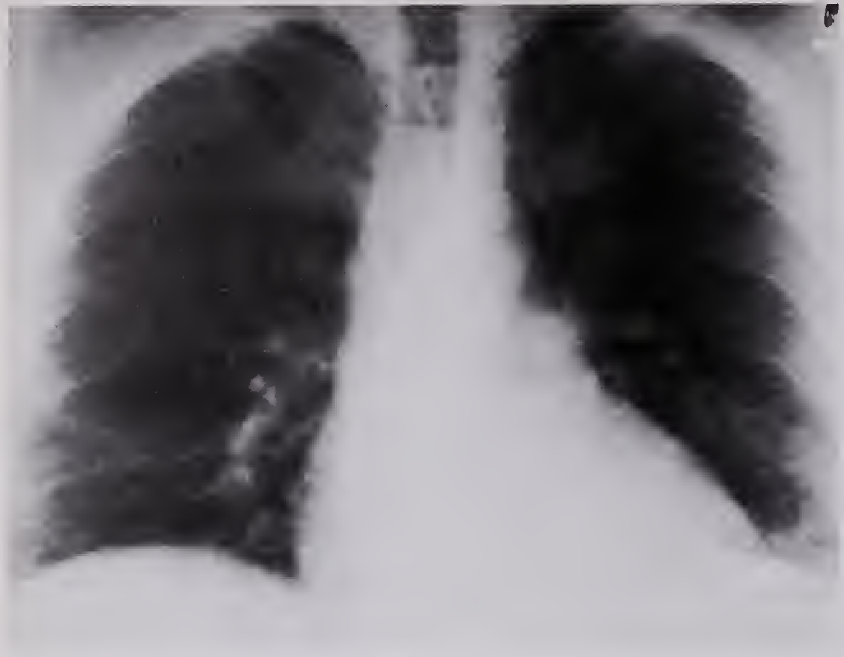

FIGURE 2 - Chest X-ray from November 28, 1981. Note mild cardiomegaly and hazy infiltrates in both bases.

TABLE
Laboratory data

	November 28	November 29	November 30	December 3
CPK (Iu/L)	67	98		
GOT (Iu/L)	18	45		
LDH (Iu/L)	158	440	145	
WBC (cu/mm)		18,000		28,900
GGT (Iu/L)		62		

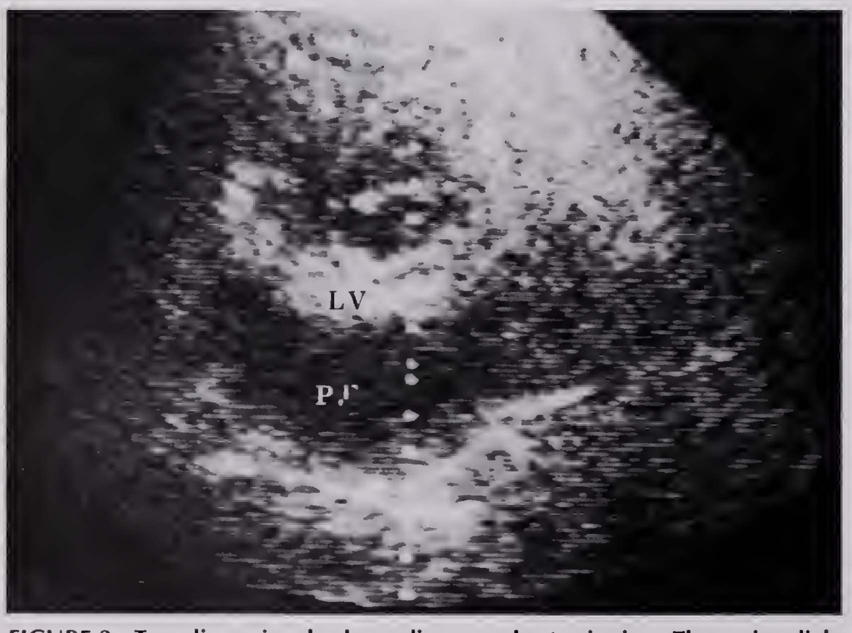

FIGURE 3 - Two-dimensional echocardiogram, short-axis view. The pericardial effusion (PE) extends to the base of the left ventricle (LV) at the mitral valve level.

tein. With even this small amount of fluid removed, the patient improved clinically. His tachycardia decreased, his blood pressure was 130/90 mm/Hg, and he was able to rest and breathe more comfortably.

At that point, because of the viscous nature of the pericardial fluid, and because echocardiographically the patient seemed to have more pericardial fluid than that obtained at pericardiocentesis, a surgical consultation was requested in regard to drainage of the pericardium. The patient underwent surgical drainage of 150 cc of hemorrhagic fluid, which was loculated. At the time of surgical exploration, 500 cc of pleural fluid were also drained. The pericardium was noted to be very shaggy and fibrinous. Pathologic examination of a sample of parietal pericardium showed organizing nonspecific fibrinous pericarditis.

During the postoperative course, the patient continued to be febrile, with sanguineous fluid output from the chest tube. Studies of the pericardiocentesis fluid showed no evidence of bacterial or fungal infection. The complement was normal. No malignant cells were seen.

On December 11, a second echocardiogram was performed. This showed evidence of a large, loculated posterior pericardial effusion (Figure 3). In contrast to the previous echo, fluid was not distributed around the entire ventricular apex but rather was accumulated in a large, loculated area near the base of the heart posteriorly. Mild inferolateral hypokinesis was noted. Physical examination revealed bilateral basilar chest rales and an S3 gallop, with no cardiac murmur. The clinical picture was that of left ventricular failure, and the attending physician thought that myocarditis secondary to pericarditis was likely.

The patient was treated with diuresis and improved. On December 13, the chest tubes were removed. On December 15, the patient became hypotensive. It was felt that his changing clinical condition could best be monitored by hemodynamic lines. The pulmonary capillary wedge tracing revealed a "V" wave suggestive of mitral regurgitation. The central venous pressure was 14 mm/Hg, and the cardiac index (by thermodilution) was 3.69. A chest X-ray taken on December 16 showed a considerable increase in cardiomegaly and increased interstitial markings compatible with pulmonary edema (Figure 4). On the same day, the return of pulsus paradoxus was noted. Recurrent tamponade secondary to an increase in the loculated pericardial effusion was a major concern. A repeat echocardiogram confirmed that the effusion had become larger.

The attending physicians decided to return the patient to the operating room for pericardiectomy and drainage. The patient became severely hypotensive during induction of anesthesia. At the time of surgery, the shaggy pericardium containing a considerable amount of loculated pericardial effusion was noted again. An area of lateral myocardium appeared infarcted.

The patient remained hypotensive and could not be weaned from the pump in spite of the use of pressors and an intra-aortic balloon pump. He died in the operating room.

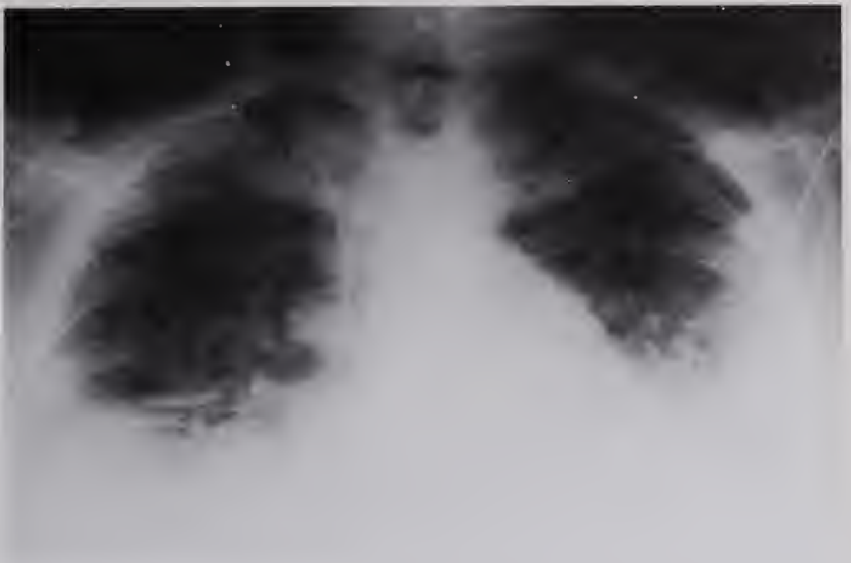

FIGURE 4 - Chest X-ray from December 16, 1981. The cardiomegaly and infiltrates have increased since November 28. Interstitial and alveolar infiltrates compatible with pulmonary edema and pleural effusions have appeared.

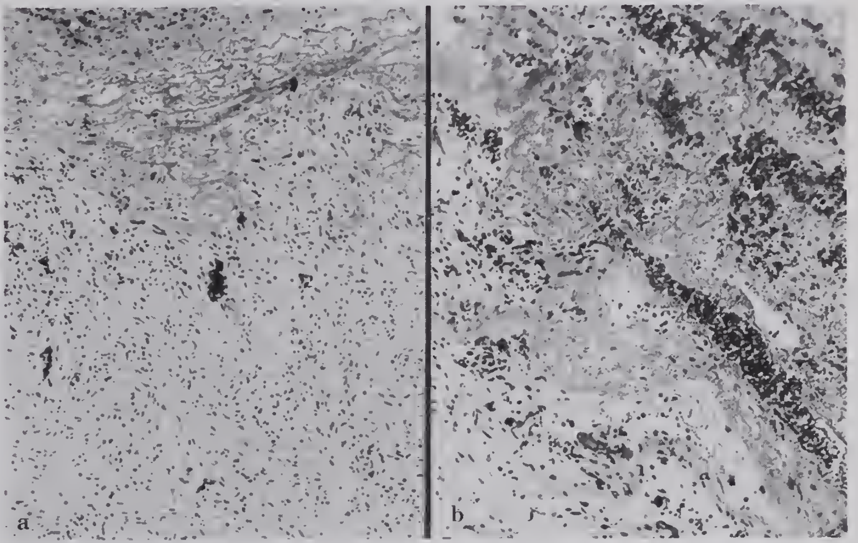

FIGURE 5 - Photomicrographs of the patient's pericardium. a. Granulation tissue invading overlying residual fibrin. H & E x 40. b. Organizing pericarditis associated with hemorrhage into the granulation tissue and remaining fibrinous exudate. H & E x 100.

Pathologic Features

The significant autopsy findings were confined to the heart and pericardium.

The pericardium was involved by a thick, fibrinous pericarditis undergoing organization (Figure 5a). Hemorrhage into this process was evident, particularly over the base of the ventricle and the related atria (Figure 5b). A transmural acute myocardial infarction of the left ventricle was located principally in the lateral and inferolateral position, lying between and partially involving the two papillary muscles. At the site of the infarct, the ventricular myocardium was one-half to two-thirds the thickness of the myocardium of the remainder of the ventricle (Figure 6).

Histologically, the lesion was transmural in distribution. It was characterized by a central conglomerate zone of necrosis of myocardial tissue. Peripheral to this zone was a rim of tissue from which muscle fibers had been removed. The remaining stroma of the myocardium was infiltrated with phagocytes, some pigmented, and with proliferating fibroblasts. Early production of collagen was evident in this area as well. On histologic grounds, the infarct appeared to be about three weeks of age, and therefore the onset of the infarction appeared to coincide with the onset of the patient's illness.

The coronary arteries showed a left dominant system, with the posterior descending artery arising as the terminal branch of the left circumflex artery. There was tri-vessel atherosclerosis of significant degree, and a thrombus undergoing organization was found in the left circumflex artery. A free-lying, non-occlusive embolus was found in the right pulmonary artery.

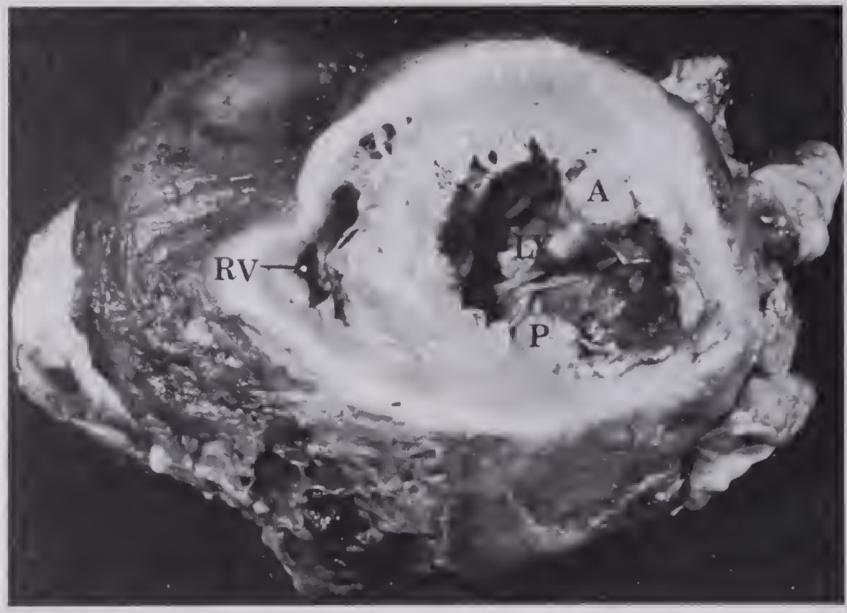

FIGURE 6 - Gross photograph of the heart. The ventricles have been sectioned and are viewed from the apex toward the base. In addition to a diffuse pericarditis, which is hemorrhagic in the inferior wall, an infarct lies in the inferolateral wall of the left ventricle (LV). The infarct lies between the anterolateral (A) and posteromedial (P) papillary muscles. Part of the infarct is on the inferior surface of the left ventricle. RV = right ventricle.

Discussion

Pericarditis and Effusion in Myocardial Infarction

Pericarditis complicating acute transmural myocardial infarction is quite common, clinically reported in 6.9 to 16 percent of patients.[1-5] Autopsy studies show an incidence of up to 45 percent. Pericarditis has not been shown to affect the incidence of cardiac rupture on the general prognosis of myocardial infarction except as it reflects the extent of transmural myocardial damage.[4,5]

The case presented is unusual in that the degree of effusion was larger and more loculated than that usually seen in the setting of myocardial infarction. Most cases of tamponade in acute myocardial infarction result from myocardial rupture and hemopericardium. Hemopericardium in acute myocardial infarction also can be caused by tamponade occurring after anticoagulant administration.[7,8] Another cause of tamponade following myocardial infarction is the effusion Dressler's syndrome.[9-12] The common fibrinous pericarditis and effusion complicating acute myocardial infarction is usually serosanguineous and small.[13]

Was the present case an example of pericarditis and tamponade secondary to Dressler's syndrome? We think not, since the infarction could be pathologically dated to around the time of admission, and since classic Dressler's syndrome occurs ten days to two years after myocardial infarction.

Cardiac Enzymes in Pericarditis

A review of the literature shows that pericarditis with myocardial involvement can give rise to CPK and MB fraction elevation.[14] No data are available about elevation of LDH in acute pericarditis, except that it has been reported elevated in the pleural fluid of one patient with Dressler's syndrome.[15] In the present case, the LDH was elevated on November 29; it was not fractionated. In retrospect, it may have reflected myocardial damage that took place several days before admission. This would explain why CPK levels were normal.

Electrocardiogram of Pericarditis

It is widely known that pericardial effusion may cause electrocardiographic changes of low voltage in electrical alternates. As pointed out by Surawicz and Lasseter,[16] pressure on the myocardium from fluid or fibrin may produce J point and ST elevation with concave configuration in most of the standard limb and precordial leads. Evolution of ST and T wave abnormalities occurs more slowly and asynchronously than in infarction. After the ST segment returns to baseline, depression of the PR segment occurs. T waves progressively flatten and invert before returning to normal. De Pasquale makes the additional point that RS-T segment elevation in several leads without reciprocal RS-T depression also suggests pericarditis.[17]

The early electrocardiograms in this patient showed widespread ST elevation (Figure 1) that was concave and upsloping, more characteristic of pericarditis than myocardial injury. Later electrocardiographic tracings showed loss of R-wave force in leads I and aVL, indicating high lateral myocardial infarction, and loss of posterior force in lead V1, suggestive of posterior infarction.

Of interest, a variety of pseudoinfarction patterns have been reported in patients with pericarditis with and without effusion and no coronary disease (at autopsy or angiography).[18-20] Therefore, caution is needed in making the diagnosis of myocardial infarction in the presence of pericarditis and effusion.

Summary

An unusual case of complicated acute myocardial infarction in a young man is presented. First, the clinical history suggested a prodromal viral syndrome, and the rest of the presentation was typical of acute viral pericarditis. Secondly, the effusion was loculated and was large enough to cause hemodynamic compromise and tamponade.

The fundamental question of why the patient could not be weaned from cardiopulmonary bypass should be addressed. The physical findings and the Swan-Ganz pulmonary capillary wedge pressure wave forms suggest that the patient developed significant mitral regurgitation in addition to tamponade. The pathologic findings of posterolateral myocardial infarction between and involving the anterolateral papillar muscles support this possibility. The multiple hemodynamic factors of myocardial damage, volume-overloaded left ventricle from mitral regurgitation, and impedance to ventricular filling secondary to tamponade from the loculated effusion caused sufficient hemodynamic embarrassment to result in the patient's death.

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Ronald Dietzman is a cardiovascular surgeon at United Hospital.

Jesse Edwards is a professor of pathology at the University of Minnesota and a senior consultant for the Jesse E. Edwards Registry of Cardiovascular Disease at United Hospital.

This study was supported by The United Hospital Foundation, St. Paul, Minnesota.

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References

1. Lichstein E, Liu H-M, Gupta P: Pericarditis complicating acute myocardial infarction: Incidence of complications and significance of electrocardiogram on admission. Am Heart J 87:246, 1974.
2. Niarchos AP, McKendrick CS: Prognosis of pericarditis after acute myocardial infarction. 8r Heart J 35:49, 1973.
3. Toole JC, 5ilverman ME: Pericarditis of acute myocardial infarction. Chest 67:647, 1975.
4. Liem KL, Durrer D, Lie KI, Wellens HJJ: Pericarditis in acute myocardial infarction. Lancet 2:1004, 1975.
5. Thadani U, Chopra MP, Aber CP, Portal RW: Pericarditis after acute myocardial infarction. Br Med J 2:135, 1971.
6. Stewart CF, Turner KB: A note on pericardial involvement in coronary thrombosis. Am Heart J 15:232, 1938.
7. Guberman BA, Fowler NO, Engel PJ, Gueron M, Allen JM: Cardiac tamponade in medical patients. Circulation 64:633, 1981.
8. Niarchos AP: Pericarditis after myocardial infarction (letter). 8r Med J 3:112, 1971.
9. Lawrence MSTA, Wright R: Tamponade in Dressler's syndrome with immunological studies. Br Med J 1:665, 1972.
10. Khan AH: Pericarditis of myocardial infarction: Review of literature with case presentation. Am Heart J 90:788, 1975.
11. Blau N, Shen BA, Pittman DE, Joyner CR: Massive hemopericardium in a patient with postmyocardial infarction syndrome. Chest 71:549, 1977.
12. Coldhaber SZ, Lorell BH, Green LH: Constrictive pericarditis: A case requiring pericardiectomy following Dressler's postmyocardial infarction syndrome. J Thorac Cardiovasc Surg 81:793, 1981.
13. Roberts WC, Spray TL: Pericardial heart disease: A study of its causes, consequences, and morphologic features. Cardiovasc Clin 7 (3):11, 1976.
14. Marmor A, Grenadir E, Keidar S, Edward S, Palant A: The MB fraction of creatine phosphokinase: An indicator of myocardial involvement in acute pericarditis. Arch Intern Med 139: 819, 1979.
15. Domby WR, Whitcomb ME: Pleural effusion as a manifestation of Dressler's syndrome in the distant postinfarction period. Am Heart J 96:243, 1978.
16. Surawicz B, Lasseter KC: Electrocardiogram in pericarditis. Am J Cardiol 26:471, 1970.
17. De Pasquale NP: The electrocardiogram in complicated acute myocardial infarction. Prog Cardiovasc Dis 13:72, 1970.
18. Tiefenbrunn AJ, Roberts R: Elevation of plasma MB creatine kinase and the development of new Q waves in association with pericarditis. Chest 77:438, 1980.
19. Salem BI, Schnee M, Leatherman LL, de Castro CM, Benrey J: Electrocardiographic pseudo-infarction pattern: Appearance with a large posterior pericardial effusion after cardiac surgery. Am J Cardiol 41:681, 1978.
20. d'A Semple P: Electrocardiographic pseudoinfarction pattern with pericardial effusion (Letter to the Editor). Am J Cardiol 46:711, 1980.

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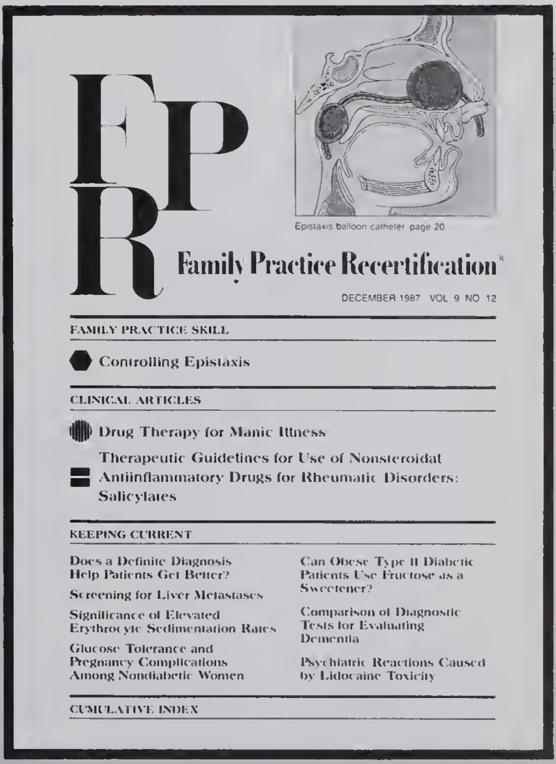

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PRESIDENT'S LETTER

The Resource-Based Relative Value Scale

In Search of Equity

The long-awaited Harvard study of a Resource-Based Relative Value Scale (RBRVS) was released to the U.S. government and to the public on September 29, 1988. The study, by William C. Hsiao, Ph.D., Peter Braun, M.D., and associates, was done at the request of the Physician Payment Review Committee (PPRC), a commission established by the U.S. Congress in 1986 to study and make recommendations to the current Medicare reimbursement system for physician services. The American Medical Association (AMA) participated in the study as a subcontractor to the Harvard research group. The study was funded by the U.S. Congress at a cost of approximately $2.5 million.

Medicare reimbursement, beginning in 1965, was based on a system of customary, prevailing, and reasonable charges (CPR). In recent years the CPR mechanism has been modified significantly by mandatory fee freezes, optional participation in a program of accepting assignment of benefits, and maximum actual allowable charges (MAAC).

Since 1984, the AMA has held that the payment mechanism based on the CPR fee structure is no longer acceptable. Serious inequities exist under the CPR system. Reimbursement is based on historical billing practices, variations in the cost of practice (including great differences in the cost of professional liability insurance), and widely divergent reimbursement related to geographic location of practice. As a possible way to correct those inequities, the AMA has proposed the development of an indemnity payment system based on the value of the services provided and not on historical CPR charges.

The U.S. Congress has expressed concern about the ever-escalating cost, to government, of providing medical care for citizens insured by Medicare and Medicaid. The PPRC, as an agent of Congress, also recommended the development of the RBRVS as a possible basis for future payment for medical services.

The RBRVS is a significant beginning in the quest for a more equitable basis for the payment for medical care.

The Harvard RBRVS may provide at least a part of the foundation for reform that should address both physician and government concerns.

The goal of the Harvard research was to develop an index of comparison of the value of all physician services within each specialty and between diverse specialties. Such a comparison takes into account the resources expended or involved in the provision of each service. Such resources include work, practice costs, and the cost of physician education. Hsiao and his associates have stated that they considered the outcome of service provided to be outside the scope of their research and, therefore, did not include outcome results in their evaluation of service value.

The Harvard study was based on the survey of a randomized list of physicians involved in the practice of 18 medical specialities. Approximately 100 physicians in each surveyed specialty were asked to assign a relative value to each of 23 services or procedures commonly provided by members of their specialty. Their evaluation was to include consideration of:

- time,
- mental effort and judgment,
- technical skill and physical effort,
- stress involved in providing the service.

Statistical evaluation of the survey results indicate a good level of agreement on the value of the services among members of the same specialty.

Other factors were considered in an effort to determine the value of a given service. One was the work involved before and after the actual patient encounter, including preparation, planning, evaluation of results, and communication with patient and family. There was considerably more variation in the value assigned to this component within each specialty. Another factor was the cost of practice. Funding was not available for primary data gathering, so existing information was used, and a figure of 50 percent of gross practice income was used as an approximation.

There are more than 7,000 services listed in the current Procedural Terminology, 4th Edition (CPT-4) coding system. Twenty-three of the most common services were surveyed for each specialty involved in the study. The relative value for all of the remaining services and procedures were extrapolated by the researchers based on historical charges obtained from Medicare data.

After the relative value of services was tabulated for each specialty, a comparison between the various specialties was made. That comparison was based on "cross-specialty linkage" of services provided by each specialty considered by the researchers to be of equivalent value.

The result of the Harvard study is an index that assigns a numerical relative value to most of the 7,000 services and procedures listed in the CPT-4 compared to all of the others. It does not assign a monetary value to any service.

The final document, "The Harvard Resource-Based Relative Value Scale" is almost 2,000 pages in length. It contains the methods used, the surveys employed, the data gathered, the assumptions made, and statistical analysis of all of its elements.

A study of this magnitude is complex indeed! The researchers have attempted the difficult task of quantifying many elements that are, at least in part, subjective in nature. Some people who have studied the report have questioned and criticized some of its assumptions, methods, and conclusions. One of the report's broad conclusion seems to be that many cognitive services are now undervalued, while several procedural services are overvalued.

The report will be the subject of intensive study by physicians, the AMA, members of the PPRC, Congress, and others. It cannot yet be considered to be the definitive statement regarding the value of medical service, but it is a significant beginning in the quest for a more equitable basis for the payment for medical care. ■

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The Issues Behind "Living Will" Legislation

Robert Eelkema, J.D., and David Feinwachs, J.D.

The term "living will" is a popular name for a document that indicates, in advance of incapacitating illness, the type, quantity, or location of health care an individual may or may not desire in a particular circumstance. A living will, or advance directive, also often encompasses the designation of a proxy to represent the individual when health care decisions must be made and the person is not able to make them for him or herself. The purpose of either mechanism, the written advance directive or the proxy appointment, is to document that one has given thought to these eventualities and to his or her desires regarding health care.

The movement to obtain statutory recognition of living wills began in California in 1976. Some of the original arguments, made more than a dozen years ago, continue to be the focus of debate and lobbying efforts today. Statutory recognition, however, is not the only means through which a patient's wishes in the realm of health care may be addressed.

A court case entitled *In the Matter of the Conservatorship of Rudolfo Torres, Conservatee*, comprises the extent of precedential case law in Minnesota. The decision of the Minnesota Supreme Court in this case addressed the question of substitute decision making for an incompetent person. The Minnesota Supreme Court was presented with two specific issues: 1) whether the court had the authority to order discontinuing life support when death may result and 2) whether the order of the court was "clearly erroneous" in light of the evidence before it. This article will review the findings and conclusions of the Torres court and discuss the opinion in light of recent efforts to enact living will legislation in Minnesota.

Current Status of Minnesota Law

Rudolfo Torres, as the result of a tragic accident, was left comatose and respirator dependent. A conservator and court-appointed counsel represented Mr. Torres at a hearing before the Hennepin County Probate Court. The hearing included arguments of counsel, medical evidence, and testimony of those who had been close to Torres. The order issued by the court authorized the conservator to order removal of the respirator.

The courts in this state have wisely indicated that the practice of medicine and medical decision making belong in the hands of physicians.

An appeal was taken to the Minnesota Supreme Court. Based upon a reading of the Minnesota Guardianship Statute, the Uniform Declaratory Judgments Act, and the Patients' and Residents of Health Care Facilities' Bill of Rights, the Supreme Court found that the lower court had the authority to make its decision.

In making this finding, the Supreme Court discussed and recognized the application of a "best interests" standard. The court went on to state that the Minnesota Patient and Resident Bill of Rights recognized that the best interests of a patient "may not be served by continued medical treatment."

The Supreme Court set out the competing interests that have been considered and balanced by courts in other jurisdictions. These are: the right of individuals to maintain control over themselves and the several interests protected by the state.

The court's assessment of the right of an individual to forego life-sustaining treatment noted the state and federal constitutional rights of the individual to privacy as well as "the common law right to be free from invasions of one's bodily integrity." The several interests in which the state has a legitimate concern are noted as: "1) the preservation of life, 2) the prevention of suicide, 3) the protection of innocent third parties, and 4) the preservation of the ethical integrity of the medical profession."

In its consideration of the competing interests, the court recognized that a compelling state interest would be required before it would be appropriate to override individual rights. Other courts in the United States considering the issue of court-ordered medical treatment over a patient's objections have found a compelling state interest primarily in those cases where the patient was responsible for financial or emotional support of dependents or children. The *Torres* decision addressed this aspect of the state's interest as follows: "in the present case, those interests of the state which might be served by having Mr. Torres maintained on a respirator are not, on balance, compelling."

The specific holding of the

Torres case was that the court order was necessary, that the court-appointed conservator had the authority to assert Torres' right to refuse treatment, and that the court's order permitting the removal of the respirator was not clearly erroneous.

Discussion

The *Torres* case is important for a number of reasons. First, it clearly established as a judicial matter that it may not be in a person's best interest to continue to receive medical treatment when there is no hope of recovery. This conclusion has placed Minnesota with the majority of states that recognize this principle. Second, the *Torres* case recognizes that the courts have the jurisdiction and authority to make these kinds of decisions. More importantly perhaps, the dicta of the *Torres* decision indicates that, indeed, the courts are not the best or usual place for such decisions to be made, but rather clearly recognizes that families and physicians should confer in reaching these conclusions.

One of the concerns raised in the appeal to the Supreme Court was the information upon which Torres' conservator relied in arriving at a decision as to Torres' "best interests." The judgment of the conservator in his request for the removal of the respirator was based on medical testimony about Torres' condition and information provided by persons who knew Torres. Testimony gathered to help assess Torres' wishes came from his first cousin, who had some knowledge of Torres' beliefs, and Torres' best friend, who also expressed a belief that Torres would want the respirator removed. Also considered were reports from three local biomedical ethics committees, which described their procedures in situations such as those presented by *Torres* and a letter from Torres' aunt, who had raised Torres. This letter included Torres' aunt's opinion that her nephew "would not wish to be sustained by mechanical devices."

It was argued that this evidence fell short of a standard that would be appropriate for a life-and-death decision. The Supreme Court's ruling in this regard was a recognition of the broad discretion and authority of the trial court to rule on the admissibility of evidence, a finding that the trial court did not abuse that discretion, and that the trial court's order was reasonable under the facts of the case.

Persons who have reviewed and studied this and other cases feel that because the *Torres* case recognized and considered written evidence regarding Torres' previous statements and desires concerning the provision of useless medical treatment, the case also establishes that written directives have a precedential value in Minnesota courts when decisions are required in this area.

Courts in other jurisdictions have held, for decisions reached among an incompetent patient's family and physician to terminate life-support systems, that involvement or approval through the court system is not necessary.

The *Torres* decision provides strong indication that this would hold true in Minnesota as well.

Communication between physicians and their patients and the realm of medical decision making should not be the subject matter of litigation and certainly is not a proper topic for legislative definition.

The Movement to Enact Living Will Legislation in Minnesota

The Minnesota living will legislative saga began several years ago. Living will legislation, as well as power of attorney for health care measures, has been introduced and reintroduced in different formulations over the past several legislative sessions. Each of these proposals has received varying degrees of consideration.

Recent legislative debate concerning living wills has shifted emphasis. Traditional opposition, which has and continues to come from pro-life organizations, is no longer uniform. Divergence of opinion as to whether living will legislation of any type is desirable or needed seems to have narrowed. This has resulted in a refocusing of the living will controversy away from the basic question of whether or not there should be statutory recognition of written advance directives. The new focus, as illustrated by the most recent competing legislative proposals, now involves the question of legislating accepted standards of medical practice.

The most striking example of attempted legislative medical practice regulation involves artificially administered nutrition and hydration. There is, however, no reason to assume that the debate will be limited to this area in the future. The question of artificially administered nutrition and hydration does provide an excellent illustration of the divergence of opinion concerning what is the proper subject matter for personal autonomy and legislative act.

The competing legislative proposals in the 1988 Minnesota Legislature were the Adult Healthcare Decisions Act (AHCDA) supported by the Living Will Coalition, and the Medical Treatment for Vulnerable Adults Act (MTVAA), a bill sponsored by the vocal pro-life organization, the Minnesota Citizens Concerned for Life (MCCL). The Living Will Coalition counts among its members the American Association of Retired Persons, the Minnesota Alliance for Health Care Consumers, the Minnesota Board on Aging, the Minnesota Hospital Association, the Minnesota Medical Association, the Minnesota Network for Institutional Ethics Committees, the Minnesota Nurses Association, and the Minnesota State Bar Association. The AHCDA represents a decision-making model respectful of personal autonomy and one that has served patients, families, and physicians for many years. This law will affirm the individual's right to determine the course of his or her medical care and assure the maintenance of appropriate standards in the medical profession.

The MCCL bill, MTVAA, was offered as its version of living will legislation and would have allowed certain persons to create written advance directives, which would receive statutory recognition in limited cases. This represents an important departure for this organization from past positions, which flatly rejected the notion that there was any need for living will legislation and indeed criticized such legislation as extremely dangerous public policy. The MCCL's new effort centers upon statutory prohibitions on the discontinuance of medical treatment for certain types of individuals, or in the alternative, the absolute prohibition of discontinuing certain types of treatment for any individual. The MCCL proposal, in its approach to the question of artificially administered nutrition and hydration, represents an example of the latter. That this is the key intent of the proposal is evident from a provision that would void the entire law if any portion, such as the presumption that all incompetent persons have directed provision of nutrition by whatever means, such as an NG tube or via a gastrostomy, is found by the courts to be invalid. Legislative provisions setting such proscriptions have, at least in one state, been found invalid.

It is interesting to note during the course of the most recent legislative session that this perspective of an absolute prohibition on the withholding or withdrawal of nutrition or hydration, by whatever form provided, softened due to pressure from senior citizen organizations such as the American Association of Retired Persons, the Gray Panthers, the Minnesota Senior Federation, and others. Because of this intense pressure, the traditional opponent of living will legislation (and proponents of legislating standards for appropriate medical care) began to limit and attempted to further define in what specific circumstances and to what specific individuals withdrawal decision making should be limited.

This process of circumscription and definition has been touted by the MCCL and proponents of their legislation such as former Representative Allen Quist, as compromise. In fact, it is a deception designed to obscure the real issue in advance directives or living will legislation. That issue, simply stated, is whether it is wise for a legislative body to prescribe and dictate any definition of accepted medical practice. The courts in this state have wisely indicated that the practice of medicine and medical decision making belong in the hands of physicians, who have both the experience and the training to provide guidance and assist patients and their families in reaching decisions appropriate to individual circumstances. Given that this is the view of the courts, one must seriously question the public policy of legislating what the courts declined to adjudicate.

Divergence of opinion as to whether living will legislation of any type is desirable or needed seems to have narrowed. The new focus involves the question of legislating accepted standards of medical practice.

Communication between physicians and their patients and the realm of medical decision making should not be the subject matter of litigation and certainly is not a proper topic for legislative definition. The validity of this statement is self-evident when one considers the dramatic changes in technology involved in the provision and availability of life-sustaining treatment. Further, when one adds to this the complexity of individual cases, the myriad possibilities of differing moral perspectives and religious backgrounds, and the near infinite variability of individual patient preference, the folly of rigid definitions becomes readily apparent.

Therefore, the real issue at the heart of the current controversy in living will or advance directive legislation is not what format the document should take, how many witnesses are required, or even whether or not advance directives are an alternative that should be available to all competent persons. The real issue is whether standards of medical practice should be defined or limited by those outside the medical professional in a way that would limit the rights of the patient and family and constrain the physician's ability to exercise medical judgment. To allow this to happen removes the insight that only the physician, by virtue of specialized education and experience, can provide. The MCCL proposal would result in rigid and arbitrary restrictions being placed on personal autonomy and would deny the reality that standards of medical practice represent a dynamic evolving system of scientific advancement and ethical considerations. The Living Will Coalition proposal recognizes the importance of respect for personal autonomy and maintains the physcian/patient/family model of decision-making.

Robert Eelkema is legal counsel for the Minnesota Medical Association.

David Feinwachs is vice president and general counsel for the Minnesota Hospital Association.

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References:

1. A. Morales et al., New England Journal of Medicine: 1221. November 12, 1981.
2. Goodman, Gilman — The Pharmacological basis of Therapeutics 6th ed., p. 176-188. McMillan December Rev. 1/85.
3. Weekly Urological Clinical letter, 27:2, July 4, 1983.
4. A. Morales et al., The Journal of Urology 128: 45-47, 1982.

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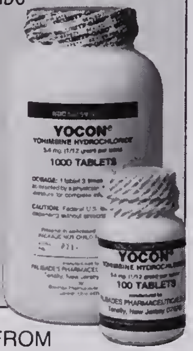

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Tax Considerations for Physicians

Arthur J. Sauter, C.P.A., and Timothy P. Muehler, J.D.

The purpose of this article is to point out areas of the law that offer possible tax benefits.

The past decade has seen almost continuous change in the tax laws. Even for professionals in the field, coping with these changes has been a full-time job. For physicians, tax law changes can be confusing and forbidding.

Fringe Benefits

Corporations are allowed access to various fringe benefit alternatives that might not otherwise be available to doctors. Although some of the following fringe benefits may be available outside the corporate form, normally these benefits are not deductible by the other forms of businesses.

For example, a professional corporation can provide the professional employee with disability benefits, health insurance, group-term life insurance, access to a medical reimbursement plan, and corporate retirement plans. Although certain restrictions apply, each of these benefits can be very attractive to the practicing physician.

► Disability Insurance

In the case of disability insurance, the corporation can either pay the insurer directly or reimburse the physician. The plan must be a formal written document adopted in the corporation's minutes. If the disability premiums are paid by an employer, the premiums are deductible by the corporation when paid, and the benefits are taxable to the physician if he or she becomes disabled.

► Health Insurance

Health insurance premiums are deductible for the corporation, but the benefits are not taxed to the insured. (Physicians who are not incorporated may deduct 25 percent of medical insurance premiums for themselves and their families.)

► Group-Term Life Insurance

A corporation can provide term life insurance for a group of employees. Again, the premiums are deductible to the corporation, and the protection and the proceeds are not taxable to the individual up to $50,000 of coverage.

► Medical Expense Reimbursement Plan

A medical expense reimbursement plan is for uninsured medical costs, which may include dental and eye care. These plans allow the corporation to pay the expenses or reimburse the employee for those expenses. In the normal case, there is a maximum contribution per year, per employee. The plan must be set up by a written agreement. It must be available to all employees, and cannot discriminate as to eligibility or benefits. The costs of covering the employees may limit the use of this type of plan to physicians whose professional corporations have a small to medium number of employees.

Reminder

Personal service corporations are taxed at the maximum corporate rate of 34 percent. However, this can be alleviated in part by the corporation distributing its profits as salary—so long as it is "reasonable" in amount. This salary will be taxed at the physician's individual tax rate, which is at most 33 percent.

Utilizing Available Deductions to Minimize Tax Liability

Two tax deduction areas that physicians can use to minimize their tax liability are travel and entertainment expenses, and luxury automobile expenses.

Travel and Entertainment Expenses

Travel and entertainment expenses cover a wide range of expenses, from everyday transportation costs (getting from office to hospital) to entertaining a business associate, home entertainment, or attending professional conventions.

To qualify as a deductible business expense, the expense must meet several tests. The expenditure must be a bona fide business expense and must meet the definitions of *ordinary* and *necessary*. "Ordinary" means the expense is customary and usual within the industry or business community. The term "necessary" means appropriate and helpful to the business.

In order for these kinds of expenses to qualify as deductible, they must also pertain to a specific business objective. The law requires a close relationship between the expense and the benefit. Actual business activity must be taking place. For physicians, this usually means the discussion of medical matters or performance of services. A limiting factor through all of these requirements is that the expenditures must not be lavish or extravagant. All of the expense claimed must be fully substantiated. This involves keeping detailed records as well as saving the receipts related to claimed expenses.

► Transportation

Transportation is deductible when it is business related, with the exception of commuting expenses. Costs of commuting between home and work are not deductible. For example, if you make multiple trips between your home and workplace, as a result of being on call, none of the costs of the trips are deductible.

Once you have reached your workplace, trips from work to other destinations are fully deductible so long as they are business related. Traveling from one business location to another is also deductible. If a physician's principal place of business is his or her home, any trips away from the home relating to business are likely to be considered deductible. Establishing that the home is the principal place of business, however, is often difficult.

If a trip has been established as business, the costs of transportation are deductible. In order to deduct the business portion of transportation expenses incurred, you must carefully document the mileage related to business and the mileage related to personal matters. If a car is determined to be used, say, 50 percent of the time for business, then 50 percent of the costs associated with that vehicle are deductible as business expense.

In order to avoid the difficult task of determining what percentage the vehicle is used for business, you can take a standard mileage deduction of 24 cents per mile for the first 15,000 business miles in a year, and 11 cents per mile in excess of 15,000 miles each year. In addition to the standard rate, interest, taxes (other than gasoline taxes), tolls, and parking are also deductible. The standard mileage rate cannot be used if the car isn't owned by the taxpayer, more than one car is used simultaneously for business, or accelerated or first-year depreciation has been taken previously on the car.

Luxury Automobile Expenses

The luxury auto tax rules affect automobiles with a cost of more than approximately $12,800 and relate only to passenger autos. Depreciation taken on luxury autos is limited to a maximum amount each year. For 1988 the limits are: 1) first year: $2,560, 2) second year: $4,100, 3) third year: $2,450, and 4) remaining years: $1,475 per year.

To determine the deductible portion, multiply the maximum amount by the percentage the car is used for business purposes. You may elect to treat the cost of an auto as an expense rather than to capitalize and depreciate annually. In this case, there is an annual limit of $10,000 that may be deducted.

If the auto is used less than 50 percent for business, other restrictions apply.

► Meals and Entertainment

Providing meals and entertainment for the primary purpose of furthering a physician's trade or business is normally deductible. A business meal that takes place between two professionals, at which only business is discussed, is clearly deductible. Not as clear, however, is when the meal and entertainment occur before or after a business discussion. If a bona fide and substantial business discussion follows or precedes the meal and entertainment, the costs are deductible. A discussion that occurs the same day as the meals and entertainment will also be considered "appropriate" for deductibility purposes.

The deductibility of meal and entertainment expenses of a business associate's spouse, and the physician's spouse, use the same tests. There must be a clear business purpose rather than a personal or social purpose in incurring the expense. For example, a spouse's expenditure would be deductible where it would be impractical to entertain the business associate without the spouse, e.g., where the associate was from out of town and traveling with his or her spouse.

Meals "away from home" are deductible, even if eaten alone, as long as they are part of a business trip. It is important to note that it must be an overnight trip, not simply a several-hour trip out of town.

There is now a new limitation on the deduction of the cost of meals. Only 80 percent of the cost of a meal is deductible. The 80 percent limitation is applied at the level where the expense is actually paid. For example, if the corporation totally reimburses you for the meal expense, the corporation is only allowed to deduct 80 percent of that cost.

► Entertaining in the Home

Entertaining in the home can be deductible if you can prove a valid business purpose. The principal purpose of the entertainment must be business. The fact that the guests are clients is not, in itself, enough. The discussion of business and seeking referrals are generally valid business-related purposes. If the entertainment has a combined purpose of business and social development, the costs must be allocated between business and personal. The percentage of guests invited for personal reasons must be applied to the total cost, to ascertain the nondeductible portion of the expenses. A list should document which guests were invited for business purposes and which for personal purposes.

► Conventions and Seminars

The costs of attending conventions and seminars will generally be deductible if the attendance will benefit your business. If the primary purpose is business, then only personal side trips unrelated to business are not deductible. If the primary purpose is personal, then no part of the *travel* costs are deductible, but the portion of expenses at the destination that are business related are deductible. The Internal Revenue Code specifically states that conventions and seminars related to personal finance and investments will not be deductible.

The rules for foreign conventions are different than for domestic conventions. The cost of foreign conventions is not deductible unless it is "as reasonable" to hold the convention outside of North America as it is to hold it in North America. Cruise ship conventions must satisfy certain requirements and are limited to a $2,000 deduction per year.

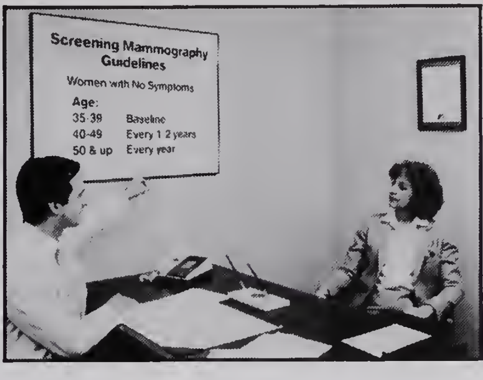
A spouse's expenses incurred while a physician is at a convention or seminar are not deductible unless a valid business purpose is shown. This is a difficult test to satisfy in most cases.

► Entertainment Facility

The Internal Revenue Code disallows deductions for expenditures relating to a facility used in connection with entertainment, amusement, or recreation. Entertainment facilities may include tennis clubs, health clubs, hunting and fishing clubs, etc. An exception to the above rule will allow deductions for club expenditures that physicians can establish as related to the primary furtherance of his or her business, and that the item was directly related to the active conduct of that business.

Arthur J. Sauter is a tax supervisor, and Timothy P. Muehler is a tax consultant; both are employed by the firm of Deloitte, Haskins and Sells, Minneapolis.

Coming in the February issue of ***Minnesota Medicine*—"Investing to Maximize After-Tax Dollars"**



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HIV-INFECTED HEMOPHILIACS

Hemophiliacs who are antibody-positive for human immunodeficiency virus are actively infected with HIV-1, not just immunized by viral proteins in the clotting factor VIII or IX concentrates they have received to control their condition, concluded a report in the October 21 *Journal of the American Medical Association*. The authors, J. Brooks Jackson, M.D., of the University of Minnesota, and colleagues, performed blood cell cultures for HIV-1 and antigen assays on a group of 75 hemophiliacs. Fifty-six of the 75 were antibody-positive for HIV, and 55 of the 56 also had positive cultures. None of the 19 antibody-negative patients had positive cultures, detectable serum antigen, or symptoms of HIV infection. "We conclude that antibody-positive hemophiliacs have been actively infected by HIV-1 and that a long period of latent HIV-1 infection prior to overt seroconversion is unlikely," the study said.

DEBT AND CAREER CHOICE

"The level of educational indebtedness has only a minor, if any, effect on the career choices of physicians." That is the premise of an article published in the Summer 1988 issue of *The Journal of Medical Practice Management*. Author Douglas Hough, Ph.D., economist, contended that while costs of a medical education have risen over the past several years, physicians' net income has also increased dramatically.

According to Hough, "the mean level of educational debt. . . jumped from $9,000 in 1975 to $35,600 in 1987," while from 1975 to 1986, physician income increased 116 percent to an average of $119,500.

"An average medical student," he notes, "would have to incur an educational debt of $142,000 in order to reduce his or her expected net income to that of an average lawyer."

While Hough points out that "little, if any, evidence exists that educational debt affects specialty choice, practice mode, or physician fees," he does acknowledge that "it is still possible that the expectation of high debt may discourage certain individuals from applying to medical school. Poor and minority college students may be relatively more risk averse than others and (despite government-guaranteed financial aid programs) may face restricted access to capital market."

COMPETITION AND COST CONTAINMENT

Programs that promote hospital competition along with cost containment can dramatically reduce inflation rates for hospital care, a study in the November 11 *Journal of the American Medical Association* concluded.

The study examined the behavior of California's hospitals since the enactment of a June 1982 state law allowing selective contracting with hospitals and physicians by both the state Medicaid program and private third-party payers. The legislation was designed to foster cost-reducing competition among health care providers, said the authors, Glenn A. Melnick, Ph.D., of the UCLA School of Public Health, and Jack Zwanziger, Ph.D., of The Rand Corp., Santa Monica, California.

AIDS GRANT FOR "U"

University of Minnesota researchers have received a $2.5 million grant from the National Institute on Drug Abuse to develop and evaluate ways to limit the spread of AIDS among Twin Cities intravenous (IV) drug users and their sexual partners.

The three-year study will examine the effectiveness of outreach, prevention, education, and intervention strategies in increasing knowledge about AIDS risks and reducing risky behavior in this group. Principal investigator is Richard Needle, an associate professor in the university's family social science department.

The project will reach 1,200 to 1,500 drug users at a high risk for contracting AIDS in Hennepin and Ramsey counties. Community health workers will run street outreach programs, and researchers will work through correctional facilities, counseling agencies, and clinics. A broad range of intervention activities is planned.

COURAGE CENTER DIRECTOR

Mark Moret, M.D., Arden Hills, was named medical director for Courage Center in Golden Valley effective November 1. Moret has been with Courage Center as a medical consultant since 1984.

Moret earned his undergraduate degree from the University of North Dakota in Grand Forks, and his medical degree from George Washington University in Washington, D.C.

MED STUDENT DEPRESSION

A significant proportion of medical students, 12 percent or more, report suffering major depressive symptoms during medical school, a study in the November 4 *Journal of the American Medical Association* suggested.

The four-year comprehensive study, involving a survey of 121 students at a Midwestern medical school, was conducted by David C. Clark, Ph.D., of Rush-Presbyterian-St. Luke's Medical Center, Chicago, and Peter B. Zeldow, Ph.D., of the Northwestern University Medical School, Chicago.

The survey used self-reporting questionnaires evaluated by means of the Beck Depression Inventory (BDI), a 21-item measure of depressive symptoms derived from clinical observations of psychiatric patients. The BDI "shows good internal consistency and has been shown to measure a single dimension of depression severity well in samples of psychiatric patients and normal volunteers," the authors said.

Using an arbitrary cutoff point on this scale as a measure, "at least 12 percent of the class showed considerable depressive symptoms at any assessment during the first three years; the largest fraction (25 percent) was symptomatic near the end of the second year." The authors emphasized, however, that the BDI analysis only suggests that a person could be suffering from major depression—it is not a substitute for a clinical diagnosis. The authors also couldn't say whether their results are applicable to other medical schools.

LONG-TERM HEALTH CARE ENDOWMENT

The first endowed faculty chair in long-term health care at a U.S. university has been created at the University of Minnesota School of Public Health.

More than 80 groups and individuals from Minnesota's long-term health care community raised $1 million to establish the chair. Another $l million was contributed by the university's Permanent University Fund to support education and research on the care of the nation's elderly. A national search is under way for the chair's holder.

MINNEAPOLIS CHILDREN'S DIRECTOR

Thomas J. Marr, M.D., began his responsibilities as executive medical director for Minneapolis Children's Medical Center in October. He succeeds Bernard Spencer, M.D., who had served as interim executive medical director since July, 1987, and Mitch Einzig, M.D., who had served in that office from February, 1984, through July, 1987.

Marr will be responsible for medical planning and program development at Minneapolis Children's. A native of Chicago, Illinois, Marr received his undergraduate degree from Loyola University in Chicago and his medical degree from Loyola University Stritch School of Medicine. He is board certified in pediatrics and pediatric nephrology.

"U" RETIN-A STUDY

Skin treated with Retin-A (tretinoin) showed improvement in appearance, not only to the naked eye, but also when examined by electron microscope, according to a recent University of Minnesota study.

Skin samples from five patients whose forearm skin was treated daily with topical Retin-A for four months as part of a study conducted by the University of Michigan and reported in the January 22, 1988, issue of the *Journal of the American Medical Association* were sent to University of Minnesota researchers for electron microscope examination. Electron microscope study was thought necessary in order to determine true subcellular improvement. Samples taken at both the beginning and end of the Michigan research period were studied by the Minnesota researchers, led by Alvin Zelickson, M.D.

Under the microscope, Retin-A-treated skin showed improvement at the subcellular level in many areas. Improvements included a definite decrease in the number of abnormal tonofilaments and fewer melanosomes.

TO CPR OR NOT TO CPR

Cardiopulmonary resuscitation (CPR) should be administered only to patients who may benefit from this costly and emotionally and physically traumatic procedure, a study in the October 14 *Journal of the American Medical Association* reported.

Since its introduction 25 years ago, CPR has become standard procedure in hospitals, although a majority of patients undergo the procedure with little or no clear benefit, according to George E. Taffet, M.D., and colleagues at the Veterans Administration Medical Center in Houston, Texas.

Contrary to some reports in the medical literature that suggest patient age is not a determinant in the outcome of CPR, the authors found that an age of 70 or more in their study population was associated with poor outcome after in-hospital resuscitation. In their retrospective study of 77 resuscitation efforts involving patients aged 70 or older, only 22 (29 percent) were alive after 24 hours, and none lived to discharge. In 322 CPR efforts involving younger patients, however, 137 were alive after 24 hours and 22 (16 percent) survived to discharge.

GENETIC LINK TO ALZHEIMER'S

There is increasing evidence that Alzheimer's disease has a strong genetic component. A study in October's *Archives of General Psychiatry* supports this view and also suggests a possible biologic marker for one prominent subgroup of Alzheimer's patients, those whose symptoms develop early and progress rapidly. Authors George S. Zubenko, M.D., Ph.D., of the Western Psychiatric Institute and Clinic, Pittsburgh, and colleagues studied first-degree relatives (father, mother, sister, brother, etc.) of 43 probable Alzheimer's patients and 47 healthy controls. Relatives of patients had about a 50 percent lifetime risk of dementia, more than four times that of the controls. The authors then looked at the study subjects' platelet membrane fluidity, an index of membrane rigidity. Relatives of patients with increased platelet membrane fluidity who developed dementia showed symptoms much earlier than relatives of patients without this abnormality.

A second *Archives* study, by Ronald L. Martin, M.D., of the University of Kansas School of Medicine, Wichita, and colleagues, also offers evidence of a genetic link in Alzheimer's. This study of 22 Alzheimer's patients and 24 controls found that relatives of patients had a 41 percent risk of developing Alzheimer's by age 83—double that of the controls. The authors noted that study subjects "were not selected on the basis of factors posited by some to indicate a familial form of (Alzheimer's), suggesting that such a genetic mechanism may be involved in the occurrence of (Alzheimer's) in general."

NEW NCMC PRESIDENT

William E. Jacott, M.D., assistant vice president for health sciences at the University of Minnesota, assumed the presidency of the North Central Medical Conference at the group's annual meeting in Minneapolis in November.

The North Central Medical Conference, which works within the American Medical Association, studies current medical issues and includes the medical associations of North Dakota, South Dakota, Nebraska, Iowa, Wisconsin, and Minnesota—representing approximately 25,000 physicians.

Jacott, a board-certified family physician, a member and former chairman of the AMA Council on Medical Education, a delegate to the AMA House of Delegates, and chairman of the Minnesota AMA delegation, will serve a one-year term.

LIVER TRANSPLANTS FOR ALCOHOLICS

Alcoholic patients with cirrhosis are just as likely to benefit from liver transplantation as adults with other liver diseases, since undergoing this traumatic procedure leads to abstinence and rehabilitation in most cases, concluded a report in the November 4 *Journal of the American Medical Association.*

The report, by Thomas E. Starzl, M.D., Ph.D., and colleagues at the University of Pittsburgh, is a review of 35 patients with alcoholic cirrhosis, who received transplants between 1963 and June 1987 and who survived six months or longer. Of these, only two returned to alcohol abuse, the authors said.

PHYSICIANS: SEE A DOCTOR

A study in November's *Archives of Internal Medicine* suggested that physicians are less likely to have a personal doctor, to see their doctors, and to have clinical procedures performed than are non-physicians. The report, by Katherine L. Kahn, M.D., of the UCLA School of Medicine, Los Angeles, and colleagues, analyzed a 1983 survey of health maintenance attitudes and behaviors among 144 university-based MDs and 283 non-physician doctoral university faculty. Forty-four percent of the MDs reported having a personal physician, compared with 74 percent of the non-MDs. Respondents with a personal MD were twice as likely to believe they should see a physician regularly and three times as likely to actually go to the doctor as those without a personal MD. But even though they were less likely to visit a physician, the majority of the MDs did report receiving the particular procedures generally considered to constitute essential health maintenance care.

PARK NICOLLET DIRECTOR

The Park Nicollet Medical Center Board of Trustees has named Rodney R. Dueck, M.D., as medical director.

Dueck succeeds Allan C. Kind, M.D., medical director since 1982.

NEW MEDTRONIC PACEMAKER

Medtronic, Inc., announced in October the first human use of the Legend™, a new pacemaker designed to record heartbeats and send messages that enable the physician to adjust it to do the best possible job of helping the heart.

Beginning European clinical evaluations of the device, Chris Bellamy, M.D., implanted the Legend pacemaker in a 70-year-old man at Broadgreen Hospital in Liverpool, England, on October 26. The patient, whose symptoms included lightheadedness and dizziness, is reported to be doing well.

FAIRVIEW HEAD RESIGNS

Carl N. Platou, who in 36 years of leadership took Fairview from a single hospital to a multi-hospital system that is a national model, retired as the organization's president on November 11.

Platou became administrator of Fairview Hospital in 1952. Since then, Fairview has grown to a system of seven hospitals, ambulatory health services, and health care management enterprises.

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LeTourneau from page 8

ally I am able to gain people's confidence right away. I knew that was a strength of mine, and I liked the idea of helping people on a short-term basis and then, for long-term care, referring them to someone who could actually follow up with the complete diagnostic things that were necessary.

REECE: *Where did you do your training for emergency medicine?*

LETOURNEAU: After medical school I did the emergency medicine residency at Hennepin County Medical Center.

REECE: *And that was three years?*

LETOURNEAU: Three years, right.

REECE: *And then where did you go?*

LETOURNEAU: After I finished at Hennepin County, I joined Emergency Physicians, P.A. I've been at Unity Medical Center in Fridley ever since, working full time in the emergency department until a year ago. At that time I was made medical director of the emergency department.

REECE: *Did you have a mentor along the way who shaped your thinking?*

LETOURNEAU: There were a lot of people who helped me and taught me. Dr. Ernie Ruiz is probably the most important in my professional training. But as far as shaping me as a manager and pointing me toward a career, I think Dr. James Anderson played the biggest role. He was important in getting me interested in management and how emergency medicine management fits together, and in giving me opportunities and encouragement to develop myself as a manager while maintaining my skills as an emergency physician.

REECE: *In our earlier conversation, you said that you asked him about getting an MBA, and he encouraged you to do so?*

LETOURNEAU: Yes. That's right. When I had been involved in the management of my group for a year or two, I found that I enjoyed it, and I knew I had a lot to learn. I told him about the MBA programs that I had looked into, and I asked him if he thought that would be a good way to go. He told me that if he had been able to do something like that when he was starting out in management, it would have been invaluable. He encouraged me to go into the MBA program, to work at it. He was the one who told me about the Bush Clinical Fellowship and encouraged me to apply.

I had to learn to see things from a business point of view and a non-medical point of view. This altered my approach to management and my approach to medical care and medicine.

REECE: *So the Bush Clinical Fellowship made your MBA possible?*

LETOURNEAU: I think so. Let me rephrase that. I would have found a way to do it without the Bush Clinical Fellowship. I was committed to the MBA program and to learning about management. But the Bush Clinical Fellowship gave me the personal encouragement and financial support to finish the program. I would have done it anyway, but it certainly helped me to do it more easily while I was supporting my family and having babies.

REECE: *The Bush Clinical Fellows program sends its fellows to a seminar called "Physicians in Transition" at the Menninger Clinic in Topeka, Kansas. You took that seminar. How did that affect your thinking?*

LETOURNEAU: The "Physicians in Transition" seminar had a profound effect on me. I knew I had to go and I was interested in going, but I realized that I was in a transition stage in thinking about how to coordinate being a person and having a personal life with being a professional and having a commitment to a profession. It forced me to look at my values, what's important to me, how important is my family, what's important about my career, and to learn that I had to make choices. Also, that I had to say no to certain meetings, that I continually had to choose my priorities. And it helped me to see that to have a profession and a family is really a discontinuation of a previous lifestyle and the emergence of a new lifestyle of coordinating my values and coordinating the things that are important to me.

REECE: *How long did it take you to complete the MBA program, and what were the time demands?*

LETOURNEAU: It took me two and one-half years. I took St. Thomas' full-time program, which is two courses per semester. I took one course during the summer, two courses during the fall and spring. My class time was six hours a week. I spent at least another six hours a week studying. I had to learn how to use a computer so that I could do computer projects and do my papers on a computer, which took me at least 20 or 30 hours. It's a significant time demand. It certainly is well worth it, and I don't think that the studying is hard. The subject matter is not difficult, especially when you compare it to biochemistry and physics and some of the things we've all had to learn. But you have to have a commitment and you have to do the work. You have to go to class.

REECE: *Do you think the intellectual rite of passage of getting an MBA altered the way you look at the world?*

LETOURNEAU: It really made a difference to me in my perception of medicine. During my MBA program, the people I worked and went to school with were mostly not medical people. They were business people. And I had to learn to see things from a business point of view and a non-medical point of view. This altered my approach to management and my approach to

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medical care and medicine. I can see a lot of the business points of view and the things that are important to non-physicians who are involved in medical care.

REECE: *Let's talk a little bit about your perception of the issues you see in the struggle for control between businesspeople and doctors. Do you think doctors have lost anything in this exchange?*

LETOURNEAU: I think physicians have lost a lot in the exchange. The first important thing they've lost is a lot of autonomy in how they take care of patients. They've lost the right to decide what's going to happen to a patient based on that individual patient's needs. I think that's probably the most important thing they've lost. The second thing they've lost is the ability to shape their own destiny as practitioners of medicine. I don't mean only in how they're going to practice medicine, I mean in how they're going to run their practices from a business point of view—how much money they are going to make, how hard they want to work—they've lost that as well in this interchange.

But I think they've gained.

REECE: *What have they gained?*

LETOURNEAU: I think they've been forced to look at how they practice medicine and ask themselves if they can do it better. The whole idea of utilization review has forced physicians to ask themselves some hard questions. Is this test important? Does this person have to be in the hospital? Do they require this surgery? I don't think that's bad. I think they've gained the ability to look at what they're doing and change their practice of medicine. Some have bought into this more than others.

REECE: *I think they also may have gained the feeling that they're going to have to play a managerial role, and people like you are crossing the great divide, the boundary between medicine and business. I think businesspeople need to know more about how doctors think, don't you?*

LETOURNEAU: I think that's true. Physicians know that businesspeople think differently, and in a lot of ways that's given a negative connotation. But I don't think that businesspeople understand that doctors have a particular point of view as far as what's important to the patient. Businesspeople can't really understand why doctors do what they do. Why do they want to admit someone to the hospital who maybe doesn't need to be in the hospital? The businesspeople think the physicians are copping out, but the physicians realize that they're calling for what might be looked at as unnecessary lab work or an unnecessary admission for the comfort and benefit of the patient. The person will feel better if these tests are done. The person needs to be in the hospital for a day or two for back pain, or whatever, so that he or she can better cope with that pain and learn how to live with it. The businesspeople don't understand that.

REECE: *I'm interested in something that's being done in St. Paul by the Ramsey County Medical Society. They're doing a mini-internship program where they have a two-day session in which they bring in businesspeople to spend two days with the doctors. I'm told that the so-called interns go away with a changed view of the doctors' world. They are amazed how busy it is, how quickly they have to make decisions, how serious some of these decisions are, and what some of the variables are. Don't you think we need more of those kind of interfaces?*

LETOURNEAU: I think that's a valuable experience. It's one thing to be a businessperson and sit in your office and say that doctors should do this or should do that. It's another thing to be standing there looking at the patient, telling them that no, they can't be admitted to the hospital; no, they have to have this procedure done as an outpatient. But physicians could also benefit by spending time learning about businesspeople. It's one thing to ask, "What difference does it make if I do this bunch of lab work or admit a patient and spend this amount of money?" But it's another thing to have to sit through a board meeting or through a meeting with the people who are your superiors and explain why you lost $2 million. I think that we all could learn by walking a mile in the other person's shoes.

REECE: *Let's change the subject just a bit and shift it toward your personal lifestyle and career. In many ways you are a prototype of the modern career woman. You've had two children after the age of 35, you're working full time as a physician, you have a nurturing husband who stays at home, and you ventured out and got an MBA. This doesn't seem to me to leave much time for yourself.*

LETOURNEAU: That's a sacrifice that I have made on what I think is a temporary basis. I think it's something that all women who have families and careers understand. I think men understand it more and more, also. They have to spend time with their families, and they have to spend time with their careers. Something has to give, and for the time being it's been a lot of my alone time, my time to recharge my batteries, my time to work out, my time to ride my horse, and my time to read. I've had to sacrifice those. I don't intend to sacrifice them forever. But you gotta do what you gotta do. And, if you want something bad enough, you've just got to find a way.

REECE: *What do you do for vacations?*

LETOURNEAU: I'm lucky in that the group that I work for has a good vacation policy and CME time. I take frequent vacations. Usually about every three months I try to get away for a week. My husband goes along with me when I go to continuing education meetings, so we have time alone there too. We try to take our kids at least once a year. If I don't get a vacation after a few months, it's very difficult for me to function. I get really burned out. When I had the baby in May, I didn't really have a vacation for six or eight months—until just a month ago. I was really feeling it. I just can't function.

REECE: *If you had it to do over again would you do it the same way?*

LETOURNEAU: I think so. Sometimes I wonder if I would want to have children because, as I mentioned to you earlier, I was surprised at the depth of my feeling for my children. It has changed my life. It's made me take time away from what I think I should be doing in my career. But I've been so enriched by my family, and so enriched by my career, that I think I would do it the same all over again. ■

Health One Continuing Medical Education

January 25	**"Third Party Reimbursement"** A practice management seminar for physicians and their office managers. Presentation by Health One Managed Care Division – 6:00-8:00 p.m. Metropolitan Mount Sinai Medical Center Heilicher Auditorium
February 6	**"Liposuction"** presentation by George Peltier, M.D. – 6:30 p.m. Health Central of Owatonna
February 15	**"Physician CPR Recertification"** 6:00-8:00 p.m. Metropolitan Mount Sinai Medical Center
February 16	**"Congestive Heart Failure"** by David Berman, M.D. 12:00 noon Sioux Valley Medical Center, New Ulm, Minnesota
April 26	**"Physician CPR Recertification"** 6:00-8:00 p.m. Metropolitan Mount Sinai Medical Center
May 1	**"The Relative Value Scale"** by Alvin L. Schultz, M.D. – 6:30 p.m. Health Central of Owatonna
June 16	**Health One/HFA Primary Care Symposium** Pillsbury Auditorium

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JANUARY 1989

12-14 **Medical Directors Training Program—3-Part Series** University of Minnesota Office of CME; Riverwood Conference Center, Monticello, Minnesota. CONTACT: Office of CME, Box 202 UMHC, 420 Delaware Street SE, Minneapolis, Minnesota 55455; (612) 626-5525.

13-14 **Second Annual OB/GYN Winter Conference** Hennepin County Medical Center/Hennepin Faculty Association; Radisson Plaza Hotel, Minneapolis, Minnesota. CONTACT: Eugenia C. Kassar, Office of Academic Affairs, 701 Park Avenue, Suite 4220, (AdaBec #834) Minneapolis, Minnesota 55415; (612) 347-2075.

20-21 **Cardiology Update** Abbott Northwestern Hospital; Radisson Arrowwood Inn and Resort, Alexandria, Minnesota. CONTACT: Tim Schuh, CME Office, Abbott Northwestern Hospital, 800 East 28th Street, Minneapolis, Minnesota 55407; (612) 863-5461.

20-21 **Vascular Laser Surgery: "A Hands-on" Training Program** Abbott Northwestern Hospital; Abbott Northwestern Hospital, Minneapolis, Minnesota. CONTACT: Tim Schuh, CME Office, Abbott Northwestern Hospital, 800 East 28th Street, Minneapolis, Minnesota 55407; (612) 863-5461.

FEBRUARY 1989

5-12 **West Indies and the Panama Canal Travel Medical Seminar Program** North Central Medical Conference. CONTACT: North Central Medical Conference, 1845 Hampshire Avenue, Suite 200, St. Paul, Minnesota 55116.

10 **Burn Care Update** St. Paul-Ramsey Medical Center Continuing Medical Education. CONTACT: Bonnie Young, 640 Jackson Street, St. Paul, Minnesota 55101; (612) 221-3977.

10-11 **Gastrointestinal Laser Surgery** Abbott Northwestern Hospital; Abbott Northwestern Hospital, Minneapolis, Minnesota. CONTACT: Tim Schuh, CME Office, Abbott Northwestern Hospital, 800 East 28th Street, Minneapolis, Minnesota 55407; (612) 863-5461.

17 **Pyelogram Conference** Minnesota Urological Society; L'Hotel Sofitel, Minneapolis, Minnesota. CONTACT: Linda Reynolds, Executive Secretary, Minnesota Urology Society, 6750 France Avenue South, #149, Edina, Minnesota 55435; (612) 925-0533.

20 **Pyelogram Conference** Minnesota Urological Society; L'Hotel Sofitel, Minneapolis, Minnesota. CONTACT: Linda Reynolds, Executive Secretary, Minnesota Urological Society, 6750 France Avenue South, #149, Edina, Minnesota 55435; (612) 925-0533.

20-24 **Practical Problems in Primary Care Medicine** University of Minnesota Office of CME; Hotel Sanur Beach, Bali, Indonesia. CONTACT: Office of CME, Box 202 UMHC, 420 Delaware Street SE, Minneapolis, Minnesota 55455; (612) 626-5525.

22-23 **Geriatric Drug Therapy Symposium** University of Minnesota Office of CME; Radisson University Hotel, Minneapolis, Minnesota. CONTACT: Office of CME, Box 202 UMHC, 420 Delaware Street SE, Minneapolis, Minnesota 55455; (612) 626-5525.

22-25 **Thoracic Organ Transplantation** Abbott Northwestern Hospital; Westin La Paloma, Tucson, Arizona. CONTACT: Tim Schuh, CME Office, Abbott Northwestern Hospital, 800 East 28th Street, Minneapolis, Minnesota 55407; (612) 863-5461.

23-24 **Primary Care of CNS Disease Trauma Conference** Hennepin County Medical Center/Hennepin Faculty Associates/St. Paul-Ramsey Medical Center; Holiday Inn Town Square, St. Paul, Minnesota. CONTACT: Eugenia C. Kassar, Office of Academic Affairs, 701 Park Avenue, Suite 4220, (AdaBec #834) Minneapolis, Minnesota 55415; (612) 347-2075.

24-25 **Preventing Acute Myocardial Infarction** University of Minnesota Office of CME. CONTACT: Office of CME, Box 202 UMHC, 420 Delaware Street SE, Minneapolis, Minnesota 55455; (612) 626-5525.

24-25 **General Laser Surgery: "A Hands-on" Training Program** Abbott Northwestern Hospital; Abbott Northwestern Hospital, Minneapolis, Minnesota. CONTACT: Tim Schuh, CME Office, Abbott Northwestern Hospital, 800 East 28th Street, Minneapolis, Minnesota 55407; (612) 863-5461.

Feb 24-Mar 11 **South American Adventure Travel Medical Seminar Program** North Central Medical Conference. CONTACT: North Central Medical Conference, 1845 Hampshire Avenue, Suite 200, St. Paul, Minnesota 55116.

MARCH 1989

1-3 **Seventh Annual Critical Care Conference** St. Paul-Ramsey Medical Center Continuing Medical Education. CONTACT: Bonnie Young, 640 Jackson Street, St. Paul, Minnesota 55101; (612) 221-3977.

3-5 **Neurology in Clinical Practice** Mayo Clinic/Mayo Foundation; Telemark Resort, Cable, Wisconsin. CONTACT: Rita Kunz, 200 First Street SW, Mayo Clinic, Rochester, Minnesota 55905; (507) 284-2509.

6-10 **Medical Update, 1989 Focusing On: Cardiology, Critical Care, Gastroenterology, Nephrology, Nutrition, Orthopedic Surgery, Pediatrics, Radiology, Surgery** University of Minnesota Office of CME; Hughes Conference Center, Holy Cross Hospital, Fort Lauderdale, Florida. CONTACT: Office of CME, Box 202 UMHC, 420 Delaware Street SE, Minneapolis, Minnesota 55455; (612) 626-5525.

10 **Tenth Annual Occupational Medicine Update** St. Paul-Ramsey Medical Center Continuing Medical Education. CONTACT: Bonnie Young, 640 Jackson Street, St. Paul, Minnesota 55101; (612) 221-3977.

16-17 **Family Practice Today** St. Paul-Ramsey Medical Center Continuing Medical Education. CONTACT: Bonnie Young, 640 Jackson Street, St. Paul, Minnesota 55101; (612) 221-3977.

17 **Pyelogram Conference** Minnesota Urological Society; L'Hotel Sofitel, Bloomington, Minnesota. CONTACT: Linda Reynolds, Executive Secretary, 6750 France Avenue South, #149, Edina, Minnesota 55435; (612) 925-0533.

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Continuing Medical Education
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1989	
February 10	Burn Care Update, St. Paul
February 23-24	Primary Care of CNS Disease and Trauma, St. Paul
March 10	Tenth Annual Occupational Medicine Update, Minneapolis
March 16-17	Family Practice Today, St. Paul
April 5-7	Pulmonary Function Testing, St. Paul
April 6-7	Annual Obstetrics and Gynecology Update, Minneapolis
April 7	ENT Update, St. Paul
June	Annual Critical Care Medicine Update, St. Paul
September 11-22	Seventh Annual Occupational Health and Safety Institute, St. Paul
September 22	Women in Transition, St. Paul
October 4-6	Pulmonary Function testing Workshop, St. Paul
October 19-21	Fifth Ramsey Trauma Conference, St. Paul
November 16-18	Clinical Strategies in Primary Care Medicine, St. Paul
December 6-8	Annual Cardiopulmonary Medicine Update, St. Paul

Information and Registration:
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Co-Chairpersons:
Stephen H. Cruikshank, M.D., and Virginia R. Lupo, M.D.
Radisson Plaza, Minneapolis

February 3, 1989

MINNESOTA DERMATOLOGICAL SOCIETY WINTER CONFERENCE
Chairman: Bruce Bart, M.D.
Hennepin County Medical Center

Spring, 1989

Minnesota Regional Sleep Disorders Center (MRSDC) Dinner Program
Co-Chairmen:
Milton Ettinger, M.D. and Mark Mahowald, M.D.

February 23-24, 1989

PRIMARY CARE OF CNS DISEASE AND TRAUMA

This conference will provide the primary care physician with an understanding of common neurological trauma and disease. Participants will learn to diagnose and initially treat common neurological trauma and disease as well as to determine when to admit a patient to a community hospital versus transferring to a regional trauma center. Co-sponsored with St. Paul Ramsey Medical Center.
Co-Chairmen:
Reynaldo Castillo, M.D., and Gaylan Rockswold, M.D.
Holiday Inn St. Paul Center, St. Paul

March 31, 1989

SECOND ANNUAL JOHN I. COE SYMPOSIUM
Chairman: Robert T. Gruninger, M.D.
Hennepin County Medical Center

April 7, 1989

GI: NEW APPROACHES TO OLD PROBLEMS
Co-sponsored with St. Paul Ramsey Medical Center.
Co-Chairmen:
Martin Freeman, M.D., and Robert Olson, M.D.
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Spring, 1989

Directors of Medical Education (DME) Conference
Chairman: Michael Belzer, M.D.
Theme: The interface of continuing medical education and quality assurance.

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Pediatrician wanted to join a 40-physician multispecialty group in northern suburbs of Minneapolis. The appropriate candidate will join the current Pediatric Department of four physicians in a very busy practice. Please address inquiries to: Bradford McKane, Comprehensive Medical Care, PA, 9055 Springbrook Drive, Coon Rapids, Minnesota 55433 or phone (612) 780-7032. (R)

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General Surgeon and Family Physician needed for busy five-physician practice. Guaranteed first-year salary with excellent benefits program. Located only 22 miles from Duluth on the beautiful North Shore of Lake Superior. Call collect: (218) 834-2171, or write Steve Bjorum, Executive Director, Community Health Center, 4th Street at 11th Avenue, Two Harbors, Minnesota 55616. (R)

Family Physician/Emergency Room: Full-time salary working weekends, primarily emergency room. Flexibility available. Falls Medical Center, PA, 105 Shorewood Drive, International Falls, Minnesota 56649. Please contact: A. Johnson, M.D., or A. Marc Gorden, M.D., at (218) 283-9431 for more information. (R)

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BE/BC OB/GYN or GYN/GYN Surgery, to join a busy 11-man multispecialty group in southern Minnesota, a community of 12,000 (trade area of 70,000), competitive salary and fringe benefits. Contact: Don Grandgenett, 8 a.m., Fairmont Medical Clinic, 800 Clinic Circle, Fairmont, Minnesota 56031; (507) 238-4263. (R)

Family Physician wanted to join four physicians, one nurse practitioner, FP group practicing in two offices in Pine River and Pequot Lakes. Competitive salary. No OB. No HMOs. Rural area with outdoor recreational opportunities. Rotate hospital visits, emergency call; adequate free time. Call or write: C.R. Pelzl, M.D., Pine and Lakes Clinics, PO Box 88, Pine River, Minnesota 56474; (218) 587-4416. (R)

Family Physician to join four others in a well-established, progressive practice serving a market of over 20,000 people. Wabasha, one of Minnesota's most historic, friendly, and beautifully scenic cities, is located on the Mississippi River and offers year-round recreational and sporting activities. Interested physicians please contact: Tom Crowley at (612) 565-4531 (collect). (R)

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Wausau Medical Center is seeking BE/BC individuals in the following specialties: cardiology, dermatology, family practice, infectious disease, obstetrics/gynecology, pediatrics, and rheumatology. Modern clinic facility located across the street from modern, 300-bed hospital. Full partnership in three years. Easy access to lakes, woods, and mountains. Write (including CV) to: D.K. Aughenbaugh, M.D., Medical Director, Wausau Medical Center, 2727 Plaza Drive, Wausau, Wisconsin 54401. (R)

St. Cloud— Minnesota's fastest growing city—family practice physician, two pediatricians, two ob/gyns, BE/BC to join supportive primary care staff in a growing, successful, and innovative prepaid practice. New clinic facility. Full range of fringe benefits (competitive salary, liberal vacation, two weeks' education leave, retirement fund, etc.). Contact: Physician Services, Central Minnesota Group Health Plan, 1245 15th Street North, St.Cloud, Minnesota 56303; (612) 253-5220. An equal opportunity employer. (R)

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Family Practitioner to join a progressive 12-physician practice at its Ellsworth, Wisconsin, branch. Rural community 40 miles from St. Paul, Minnesota. Liberal benefit package. Salary commensurate with background and experience. Contact: R.M. Hammer, M.D., River Falls, Wisconsin 54022; (715) 425-6701 or (612) 436-8809. (R)

Family Physicians: Practice opportunities for three or four BC/BE family practitioners to practice in southwest Minnesota. Worthington Medical Center PA, a 16-member multispecialty group, seeks to expand its practice in Worthington and Jackson, Minnesota. Above-average salaries, liberal vacation, and standard benefits package. Contact: D. Anderson, M.D., or J. Sieve, Administrator, Worthington Medical Center, 508 Tenth Street, Worthington, Minnesota 56187; (507) 372-2921. 6-1/89

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Mankato Clinic, Ltd. is seeking BE/BC physicians in the following specialties: allergy, dermatology, invasive cardiology, oncology, urology, ophthalmology, and general internal medicine. The Mankato Clinic is a 38-doctor multispecialty group practice in south-central Minnesota with a trade area population of 150,000. Guaranteed salary first year, incentive thereafter with full range of benefits and liberal time off. For more information, call Roger Greenwald, Administrator, or Dr. B.C. McGregor, (507) 625-1811 or write 501 Holly Lane, Mankato, Minnesota 56001. (R)

Family Physician needed to join group of five family physicians in St. Peter, Minnesota, population 9,000, located one hour south of Minneapolis. Contact: Doug Olmanson, M.D., or D.A. Nygard, Administrator, St. Peter Clinic, Ltd., 622 Sunrise Drive, St. Peter, Minnesota 56082; (507) 931-2110. (R)

Bemidji, Minnesota: Excellent opportunities for well-trained physicians. We are seeking board-certified/board-eligible physicians in orthopedic surgery, family practice, ophthalmology, pediatrics, and otolaryngology to join a young 24-physician multispecialty group practice located in northern Minnesota. Competitive salary guarantee plus incentive first year and excellent benefits. An excellent opportunity for a physician to enjoy practice in the center of hunting, fishing, and clear air. Please respond with CV to: C.C. Lowery, Administrator, Bemidji Clinic-MeritCare, 1233 34th Street NW, Bemidji, Minnesota 56601; (218) 751-1280. (R)

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Outstanding Opportunity for a BE/BC Family Physician to join a progressive medical community with eight physicians oriented to family practice. Details will be given by contacting: Dr. Tim Schmitt, Wadena Medical Center; (218) 631-1360; or Jim Lawson, Administrator, Tri-County Hospital, Wadena, Minnesota 56482; (218) 631-3510. (R)

Family Practice: Two BC/BE family practitioners needed to join three progressive physicians for expanding central Minnesota practice. Offering $75,000 first year salary and full corporate membership after one year. Contact: Paul Van Gorp, M.D., (612) 732-2131. 4-4/89

Female Internist or Gynecologist Wanted: Must be board certified. To join female gynecologist, male cardiologist, and male internist. Competitive salary, future partnership a definite possibility. Send resume to Summit Medical Group, P.C., 2800 Spring Arbor Road, Jackson, Michigan 49203; (517) 783-2691. *4-1/89

Internist BE/BC: North Shore Internal Medicine, PC is seeking an energetic general internist to enjoy the benefits of a rapidly expanding practice. New office close to hospital. Michigan State Medical School Campus. Send resume to: 2420 First Avenue South, Escanaba, Michigan 49829; (906) 786-1563. (R)

Minnesota—Emergency Medicine: Excellent emergency department clinical opportunities are available at client hospitals throughout Minnesota, including locations near Rochester, west of St. Paul, northern and central Minnesota. Varying schedules available. Guaranteed hourly rate of reimbursement, occurrence malpractice insurance coverage. For complete details, contact: Bill Hewa, Spectrum Emergency Care, PO Box 27352, St. Louis, Missouri 63141; 1-800-325-3982, extension 3033. *3-1/89

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St. Peter, Minnesota: Available immediately. Position of senior staff physician to work with progressive and forward-looking staff and administration to meet the medical needs of the patients at St. Peter Regional Treatment Center. JCAH accredited. Delightful setting in the heart of the Minnesota River Valley. University town of 10,000, ten minutes from Mankato and one hour from the Twin Cities. Salary range in 70s to 80s for BC/BE according to experience, with excellent fringe benefit package and an opportunity for expanding income through minimal call. An AA/EOE employer. For further information contact: J.P. O'Reilly, M.D., Clinical Services Director, St. Peter Regional Treatment Center, 100 Freeman Drive, St. Peter, Minnesota 56082; (507) 931-7757. 3-1/89

Pain Fellowship: Position for PGY4 or PGY5 to participate in a one- or two-year program of clinical pain management and clinical or basic research, sponsored by the Department of Neurology, Hennepin County Medical Center, Minneapolis, Minnesota, beginning July 1, 1989. The program maintains an active outpatient practice and sees hospitalized patients on a referral basis from all departments. Opportunities to learn pharmacological management, acupuncture, peripheral nerve blockade, biofeedback technique, and other areas related to pain are available. Hennepin County Medical Center is an equal opportunity educator and employer and specifically invites and encourages applications from women and minorities. Applications and CV should be sent to: Miles J. Belgrade, M.D., Director, Hennepin Pain Center, Department of Neurology, Hennepin County Medical Center, 701 Park Avenue South, Minneapolis, Minnesota 55415. 3-1/89

BE/BC Psychiatrist: Excellent opportunity to join a well-established, progressive, 19-physician multispecialty group (9 FP, 4 IM, 2 OB/GYN, 1 Peds, 2 Surg) located in an economically sound community of 20,000 (drawing area of 30,000), 65 miles south of Twin Cities. Full membership after one year. One FP retiring in 1987. Competitive salary and fringe benefit package. Contact: Ed Durst, M.D., or Terry Tone, Administrator, 134 Southview, Owatonna, Minnesota 55060; (507) 451-1120. (R)

Minnesota Internist Seeks BE/BC Internist to join his practice in a central Minnesota resort community. Beautiful lakes and expanding retirement area. New 162-bed hospital with all specialties. Offices in 5-year-old medical office building. Write: Minnesota Medicine (828), 2221 University Avenue SE, Suite 400, Minneapolis, Minnesota 55414. (R)

Minnesota/Dermatologist to join a 40-physician multispecialty group in the northern suburbs of Minneapolis. The appropriate candidate will join a very busy and growing practice. Please address inquiries to Dr. Ronald Jankowski, 5300 153rd Avenue, Ramsey, Minnesota 55303; or phone (612) 427-7180. 3-1/89

Family Practitioner: Up to $70,000+ for qualified FP at Willmar Regional Treatment Center. Direct PT care plus leader of a treatment team. Paid malpractice; ample vacation and sick leave; health, life, dental insurance; limited call. Numerous outdoor recreational activities. Only 90 miles from Minneapolis/St. Paul. Excellent schools. Moonlighting permitted. CV to: Larry Olson, M.D., Medical Director, WRTC, Box 1128, Willmar, Minnesota 56201; (612) 231-5100. EOE. 3-1/89

Positions Available—Neurology: SEI Health Services is seeking two adult neurologists and one pediatric neurologist for a large neurological group in the southeastern United States. Recruiting board-eligible or board-certified physicians. Competitive salary and comprehensive benefit package that includes malpractice insurance and relocation assistance. Clinical experience in EEG, EMG, envoked response, doppler ultrasound, and sleep disorders preferred. Send resume to: SEI Health Services Division, James Hacker, General Manager, 7725 Little Avenue, Charlotte, North Carolina 28226; or call: (704) 542-7100. 3-2/89

HealthWorks Northwest Occupational Medicine Center is seeking two (2) physicians for its staff. Appointments are scheduled for January 1989 and July 1989. BE or BC desirable. Physicians (family practice and emergency medicine) with an interest in occupational medicine are also invited to apply. Please send curriculum vitae to: Scott Lindblom, Physician Recruiter, Fairview Physician and Clinic Services, 2312 South Sixth Street, Minneapolis, Minnesota 55454; or call: (612) 371-6235. 3-2/89

General Surgeon: Growing 15-member multispecialty group in a southwest Minnesota university city is in need of a second board-certified/eligible general surgeon. Excellent school system; near hunting and fishing; easy access to two metropolitan areas. Generous salary and benefit package, well above Upper Midwest average. Interested applicants send CV to: William E. Wagner, M.D., F.A.C.S., 300 South Bruce Street, Marshall, Minnesota 56258; or call (507) 532-9631. 3-2/89

For Sale: Internal medicine practice. Net top 8% of U.S. (612) 252-7790. (R)

Emergency Room Physician: South-central Minnesota college community with approximately 15,000 ER visits/year. Competitive salary and benefits. Hours and responsibilities OPEN. Contact: Mankato Emergency Physicians Corp., c/o Emmanuel-St. Joseph's Hospital, 325 Garden Boulevard, Mankato, Minnesota 56001. 2-1/89

Minneapolis: Multiple opportunities available for obstetricians at Riverside Medical Center. Option to work with midwives and be active in a teaching program for OB/GYN and family practice residents. Competitive salary and benefit package. Send curriculum vitae to: Scott M. Lindblom, Physician Recruiter, Fairview Physician and Clinic Services, 2312 South Sixth Street, Minneapolis, Minnesota 55454; or call (612) 371-6235. 2-1/89

Minneapolis, Minnesota: Two (2) positions available for BE/BC OB/GYNs at Bloomington-Lake Clinic, a multispecialty clinic, with two

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(2) locations and a third clinic that opened in Eagan in November. Competitive salary and benefits provided. Please contact: Scott M. Lindblom, Physician Recruiter, Fairview Physician and Clinic Services, 2312 South Sixth Street, Minneapolis, Minnesota 55454; or call (612) 371-6235. 2-1/89

Obstetrics and Gynecology: Confidence in this opportunity's success is high, and is reflected by the income guaranteed. Northeastern Midwest; 100,000 in metro area. Dynamic 400+ bed hospital with excellent step-up Level I nursery, state-of-the-art technological support, Level III nursery within 20 minutes. Complete package includes malpractice and full practice management services. Only board-certified/board-eligible specialists. Respond in confidence to: Jim Huber, Fox Hill Associates, 250 Regency Court, Waukesha, Wisconsin 53186; 1-800-338-7107. 2-1/89

Aspen Medical Group, an independent, multispecialty group with eight clinic locations in the Minneapolis/St. Paul metropolitan area, seeks associates in FAMILY PRACTICE, INTERNAL MEDICINE, OBSTETRICS/GYNECOLOGY, ORTHOPEDIC SURGERY. Competitive earnings, excellent benefits, reasonable call and clinic responsibilities. Reply: Maureen Reed, M.D., Chief of Staff, Aspen Medical Group, 1295 Bandana Boulevard North, Suite 310, St. Paul, Minnesota 55108. Call (612) 642-2707. *3-2/89

Large family practice group of 35 physicians looking for eight additional family practitioners. We are located in recreational area in the southeast metro area of the Twin Cities. Contact: Maureen Arend, Regina Medical Complex, Hastings, Minnesota 55033; (612) 437-3121. 2-1/89

Family Practice, BE/BC: Southeastern United States. Urgent care practice. Comprehensive benefits, competitive compensation, and bonus. Malpractice coverage, advancement potential, and flexible scheduling. Resume to: James Hacker, SEI Health Services, 7725 Little Avenue, Charlotte, North Carolina 28226; or call (704) 542-7100. 3-2/89

BE/BC, Two Adult Neurologists, One Pediatric Neurologist for large neurological group in Southeast. Salary and benefits including malpractice and relocation. Clinical experience in EEG, EMG, evoked response, doppler ultrasound. Send resume to: SEI Health Services, 7725 Little Avenue, Charlotte, North Carolina 28226; or call James Hacker at (704) 542-7100. 3-2/89

General Surgeon to join a 12-physician multispecialty group practice. Rural college town 30 miles from St. Paul, Minnesota, with community hospital. Contact: R. M. Hammer, M.D., River Falls, Wisconsin 54022; (715) 425-6701 or (612) 436-8809. *(R)

One to Two General Internists for large metropolitan area primary, consultative, and ICU practice with opportunity of teaching in the University residency program. Reply with CV to: Ms. Carole Nimlos, Office Manager, St. Paul Internists, P.A., 590 Park Street, St. Paul, Minnesota 55103. (R)

Physicians: Part-time position available performing insurance physicals, blood draws, and EKGs. Own transportation. If interested call: Meditest, (612) 521-2292. 2-1/89

13th Annual Winter Pediatric Seminar: February 9 & 10, 1989. Location: Big Powderhorn Mountain Ski Resort, Bessemer, Michigan. Further Information: Marshfield Clinic Medical Education Office, 1000 North Oak Avenue, Marshfield, Wisconsin 54449; (715) 387-9207. 2-1/89

Telemark Cancer Conference: January 25, 26 & 27, 1989. Location: Telemark Lodge, Cable, Wisconsin. Further Information: Marshfield Clinic Medical Education Office, 1000 North Oak Avenue, Marshfield, Wisconsin 54449; (715) 387-5207. 2-1/89

Physicians: Practice opportunities in southwest Florida. Financial and logistical assistance available. Contact: Tracy Chelf, East Pointe Hospital, 1500 Lee Boulevard, Lehigh Acres, Florida 33936. 1-1/89

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BE/BC Otolaryngologist seeking an associate in a Denver area private practice. Send CV and a detailed letter of job and salary expectations to: Minnesota Medicine (832), 2221 University Avenue SE, Suite 400, Minneapolis, Minnesota 55414. 1-1/89

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General Practitioner: Excellent opportunity to join expanding practice in rural central Minnesota. Clinic next to 25-bed hospital, 60-bed nursing home. Small town ideal for family and outdoor recreation. Strategically located at crossroads of major U.S. highway and interstate for convenient access to nearby communities including Minneapolis/St. Paul. Send CV to: Clinic Manager, 501 Lakeshore Drive, Sauk Centre, Minnesota 56378. 1-1/89

Psychiatrist: An opening exists for a general psychiatrist with Hennepin Faculty Associates. Salary and benefits are generous. Requirements are board eligibility, Minnesota licensure and potential for appointment in the Department of Psychiatry at the University of Minnesota. Position involves mainly inpatient and some outpatient care of acutely ill patients. This would be in association with over a dozen other full-time psychiatrists engaged in clinical care, teaching, research and forensics. The University of Minnesota and Hennepin County Medical Center are equal opportunity educators and employers and specifically invite and encourage applications from women and minorities. Contact: William W. Jepson, M.D., Chief of Psychiatry, Hennepin County Medical Center, 701 Park Avenue South, Minneapolis, Minnesota 55415; (612) 347-5764. (R)

OB/GYN Table: Excellent condition. $650. (612) 920-7855. 2-1/89

Family Physician: Full-time or part-time positions staffing Convenience Care Medical Center. Competitive salary plus malpractice insurance. Call or write: Richard Gebhart, M.D., Grove Square Convenience Care, 13800 83rd Way, Maple Grove, Minnesota 55369; home (612) 420-6912, or work (612) 420-5822. 9-9/89

Hutchinson, Minnesota: Seeking BE/BC family practice physician to join established, successful physicians group. Modern, well-equipped clinic and hospital located in Hutchinson, Minnesota, a progressive and growing community 60 miles west of the Twin Cities. Competitive compensation package. Send CV to: Brenda Maiers, HMC, 1091 Highway 15 South, Hutchinson, Minnesota 55350. 1-1/89

Faculty Positions, Department of Surgery: The University of Iowa Department of Surgery invites applications for faculty positions of all ranks for M.D.s with special qualifications in: 1) all areas of general surgery and plastic surgery, 2) cardiothoracic surgery and 3) neurosurgery. Associate positions are available in the Emergency Treatment Center. Women and minorities are encouraged to apply. Written only inquiries and curriculum vitae direct to: R. J. Corry, M.D., Professor and Head, Department of Surgery, The University of Iowa College of Medicine, Iowa City, Iowa 52242. We are an equal opportunity/affirmative action employer. *1-1/89

North Dakota: Opportunity for two general practice physicians. Group, solo or hospital-based; '89 residents considered. Outstanding compensation package. Supported by profitable 30-bed hospital. Strong economy and excellent schools. Four-season recreation activities. Cultural amenities nearby. Contact: Don Gustavson, Tyler & Company, 9040 Roswell Road, Atlanta, Georgia 30350; call (404) 641-6411. 1-1/89

California: Outstanding practice opportunities in ob/gyn, allergy, family practice, pediatrics, internal medicine, dermatology, pulmonary disease, invasive cardiology, neurology, orthopedic surgery, urology, and neurosurgery. As retained consultants to quality hospitals, group practices, and HMOs in northern and southern California, we can discuss each practice in detail. Please call or send a CV for additional information. Confidentiality is assured. Contact: Ken Baker, Physician Search Group, 50 California Street, Suite 400, San Francisco, California 94111; (415) 981-7424 (collect). *1-1/89

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General Internist: The St. Cloud Medical Group located in central Minnesota has an immediate opening for a general internist to join a 24-physician multispecialty group in St. Cloud, Minnesota. The Department of Internal Medicine currently has two board-certified internists and is in the process of recruiting two additional board-certified internists to that department. This opportunity affords a general internist a great financial and working opportunity. St. Cloud is one of the fastest-growing communities in the state of Minnesota and is home to three major colleges. It is geographically located to provide quick access to the metropolitan Twin Cities area. The St. Cloud community has excellent school systems available to the individual physician and his or her family members. If interested in this excellent opportunity, please call collect: either Dr. Ronald Elg and/or Daryl G. Mathews, Adminstrator, at (612) 251-8181, and/or send curriculum vitae to: St. Cloud Medical Group, PA, 1301 West St. Germain Street, St. Cloud, Minnesota 56301. 4-4/89

Minneapolis Suburban Pediatric Group has opportunity for board-certified or eligible pediatrican. Busy, diverse practice with good compensation and fringe benefit package. Contact: Gene Inett, Administrator, Metropolitan Pediatric Specialists, PA, 416 Southdale Medical Building, Edina, Minnesota 55435; (612) 920-9191. 3-3/89

General Surgeon: Immediate opportunity to establish a practice in a progressive, family-oriented, rural community with excellent schools and outdoor recreation. Reply to: Physician Recruitment, St. Anthony's Hospital, 2nd and Adams Street, O'Neill, Nebraska, 68763; (402) 336-2611. *3-3/89

BE/BC Psychiatrist: Excellent opportunity to join a well-established, progressive, 19-physician multispecialty group (9 FP, 4IM, 2 OB/GYN, 1 Derm, 1 Peds, 2 Surg) located in an economically sound community of 20,000 (drawing area of 30,000), 65 miles south of Twin Cities. Full membership after one year. One FP retiring in 1987. Competitive salary and fringe benefit package. Contact: Ed Durst, M.D., or Terry Tone, Administrator, 134 Southview, Owatonna, Minnesota 55060; (507) 451-1120. (R)

Family Physician: Established four-man family physician group seeking a board-certified or board-eligible family physician to replace retired physician—$5,800 monthly salary guaranteed the first two years, plus incentive and benefits. Thriving community has up-to-date hospital with excellent specialty backup through networking. New clinic by fall 1989. New branch clinic in Doland. Malpractice insurance paid. Contact: Joel B. Huber, M.D., Medical Director, Family Physicians and Surgeons, Redfield, South Dakota 57469; (605) 472-0510. *3-3/89

Family Practice Physician wanted to join a 22-physician multispecialty primary care clinic located across from North Memorial Medical Center, a progressive and modern hospital in Robbinsdale, Minnesota. Very competitive salary and benefit package. Three contemporary offices located within seven miles of each other. There are currently 11 family practice physicians in this medical group. Please contact: Dan Noonan, M.D., 3366 Oakdale Avenue North, Robbinsdale, Minnesota 55422. Telephone: (612) 588-4625. 2-2/89

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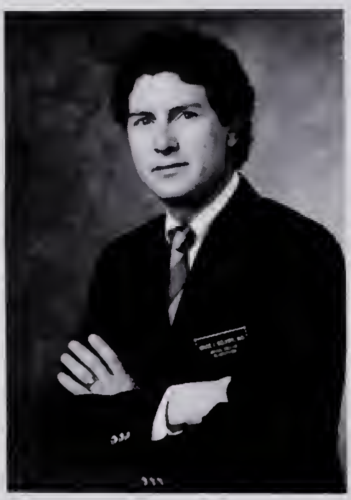

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VASOTEC®

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Contraindications: VASOTEC® (Enalapril Maleate, MSD) is contraindicated in patients who are hypersensitive to this product and in patients with a history of angioedema related to previous treatment with an ACE inhibitor.

Warnings: *Angioedema.* Angioedema of the face, extremities, lips, tongue, glottis, and/or larynx has been reported in patients treated with ACE inhibitors, including VASOTEC. In such cases, VASOTEC should be promptly discontinued and the patient carefully observed until the swelling disappears. In instances where swelling has been confined to the face and lips, the condition has generally resolved without treatment, although antihistamines have been useful in relieving symptoms Angioedema associated with laryngeal edema may be fatal **Where there is involvement of the tongue, glottis, or larynx likely to cause airway obstruction, appropriate therapy, e.g., subcutaneous epinephrine solution 1:1000 (0.3 mL to 0.5 mL), should be promptly administered.** (See ADVERSE REACTIONS.)

Hypotension: Excessive hypotension is rare in uncomplicated hypertensive patients treated with VASOTEC alone Heart failure patients given VASOTEC commonly have some reduction in blood pressure, especially with the first dose, but discontinuation of therapy for continuing symptomatic hypotension usually is not necessary when dosing instructions are followed; caution should be observed when initiating therapy. (See DOSAGE AND ADMINISTRATION.) Patients at risk for excessive hypotension, sometimes associated with oliguria and/or progressive azotemia and rarely with acute renal failure and/or death, include those with the following conditions or characteristics: heart failure, hyponatremia, high-dose diuretic therapy, recent intensive diuresis or increase in diuretic dose, renal dialysis, or severe volume and/or salt depletion of any etiology. It may be advisable to eliminate the diuretic (except in heart failure patients), reduce the diuretic dose, or increase salt intake cautiously before initiating therapy with VASOTEC in patients at risk for excessive hypotension who are able to tolerate such adjustments. (See PRECAUTIONS, *Drug Interactions* and ADVERSE REACTIONS.) In patients at risk for excessive hypotension, therapy should be started under very close medical supervision and such patients should be followed closely for the first two weeks of treatment and whenever the dose of enalapril and/or diuretic is increased. Similar considerations may apply to patients with ischemic heart disease or cardiovascular disease in whom an excessive fall in blood pressure could result in a myocardial infarction or cerebrovascular accident

If excessive hypotension occurs, the patient should be placed in supine position and, if necessary, receive an intravenous infusion of normal saline. A transient hypotensive response is not a contraindication to further doses of VASOTEC, which usually can be given without difficulty once the blood pressure has stabilized. If symptomatic hypotension develops, a dose reduction or discontinuation of VASOTEC or concomitant diuretic may be necessary

Neutropenia/Agranulocytosis: Another ACE inhibitor, captopril, has been shown to cause agranulocytosis and bone marrow depression, rarely in uncomplicated patients but more frequently in patients with renal impairment, especially if they also have a collagen vascular disease. Available data from clinical trials of enalapril are insufficient to show that enalapril does not cause agranulocytosis at similar rates. Foreign marketing experience has revealed several cases of neutropenia or agranulocytosis in which a causal relationship to enalapril cannot be excluded Periodic monitoring of white blood cell counts in patients with collagen vascular disease and renal disease should be considered

Precautions: *General: Impaired Renal Function:* As a consequence of inhibiting the renin-angiotensin-aldosterone system, changes in renal function may be anticipated in susceptible individuals. In patients with severe heart failure whose renal function may depend on the activity of the renin-angiotensin-aldosterone system, treatment with ACE inhibitors, including VASOTEC, may be associated with oliguria and/or progressive azotemia and rarely with acute renal failure and/or death.

In clinical studies in hypertensive patients with unilateral or bilateral renal artery stenosis, increases in blood urea nitrogen and serum creatinine were observed in 20% of patients. These increases were almost always reversible upon discontinuation of enalapril and/or diuretic therapy In such patients, renal function should be monitored during the first few weeks of therapy

Some patients with hypertension or heart failure with no apparent preexisting renal vascular disease have developed increases in blood urea and serum creatinine, usually minor and transient, especially when VASOTEC has been given concomitantly with a diuretic. This is more likely to occur in patients with preexisting renal impairment Dosage reduction and/or discontinuation of the diuretic and/or VASOTEC may be required.

Evaluation of patients with hypertension or heart failure should always include assessment of renal function. (See DOSAGE AND ADMINISTRATION.)

Hyperkalemia. Elevated serum potassium (> 5.7 mEq/L) was observed in approximately 1% of hypertensive patients in clinical trials. In most cases these were isolated values which resolved despite continued therapy. Hyperkalemia was a cause of discontinuation of therapy in 0.28% of hypertensive patients. In clinical trials in heart failure, hyperkalemia was observed in 3 8% of patients, but was not a cause for discontinuation.

Risk factors for the development of hyperkalemia include renal insufficiency, diabetes mellitus, and the concomitant use of potassium-sparing diuretics, potassium supplements, and/or potassium-containing salt substitutes, which should be used cautiously, if at all, with VASOTEC. (See *Drug Interactions.*)

Surgery/Anesthesia: In patients undergoing major surgery or during anesthesia with agents that produce hypotension, enalapril may block angiotensin II formation secondary to compensatory renin release If hypotension occurs and is considered to be due to this mechanism, it can be corrected by volume expansion.

Information for Patients:

Angioedema. Angioedema, including laryngeal edema, may occur especially following the first dose of enalapril. Patients should be so advised and told to report immediately any signs or symptoms suggesting angioedema (swelling of face, extremities, eyes, lips, tongue, difficulty in swallowing or breathing) and to take no more drug until they have consulted with the prescribing physician.

Hypotension. Patients should be cautioned to report lightheadedness especially during the first few days of therapy. If actual syncope occurs, the patients should be told to discontinue the drug until they have consulted with the prescribing physician.

All patients should be cautioned that excessive perspiration and dehydration may lead to an excessive fall in blood pressure because of reduction in fluid volume Other causes of volume depletion such as vomiting or diarrhea may also lead to a fall in blood pressure; patients should be advised to consult with the physician.

Hyperkalemia Patients should be told not to use salt substitutes containing potassium without consulting their physician.

Neutropenia: Patients should be told to report promptly any indication of infection (e.g , sore throat, fever) which may be a sign of neutropenia.

NOTE. As with many other drugs, certain advice to patients being treated with enalapril is warranted This information is intended to aid in the safe and effective use of this medication It is not a disclosure of all possible adverse or intended effects.

Drug Interactions:

Hypotension. Patients on Diuretic Therapy Patients on diuretics and especially those in whom diuretic therapy was recently instituted may occasionally experience an excessive reduction of blood pressure after initiation of therapy with enalapril. The possibility of hypotensive effects with enalapril can be minimized by either discontinuing the diuretic or increasing the salt intake prior to initiation of treatment with enalapril. If it is necessary to continue the diuretic, provide close medical supervision after the initial dose for at least two hours and until blood pressure has stabilized for at least an additional hour (See WARNINGS and DOSAGE AND ADMINISTRATION.)

Agents Causing Renin Release: The antihypertensive effect of VASOTEC is augmented by antihypertensive agents that cause renin release (e g , diuretics).

Other Cardiovascular Agents: VASOTEC has been used concomitantly with beta-adrenergic-blocking agents, methyldopa, nitrates, calcium-blocking agents, hydralazine, prazosin, and digoxin without evidence of clinically significant adverse interactions.

Agents Increasing Serum Potassium VASOTEC attenuates potassium loss caused by thiazide-type diuretics. Potassium-sparing diuretics (e g , spironolactone, triamterene, or amiloride), potassium supplements, or potassium-containing salt substitutes may lead to significant increases in serum potassium Therefore, if concomitant use of these agents is indicated because of demonstrated hypokalemia, they should be used with caution and with frequent monitoring of serum potassium. Potassium-sparing agents should generally not be used in patients with heart failure receiving VASOTEC

Lithium: A few cases of lithium toxicity have been reported in patients receiving concomitant VASOTEC and lithium and were reversible upon discontinuation of both drugs. Although a causal relationship has not been established, it is recommended that caution be exercised when lithium is used concomitantly with VASOTEC and serum lithium levels should be monitored frequently.

Pregnancy—Category C: There was no fetotoxicity or teratogenicity in rats treated with up to 200 mg/kg/day of enalapril (333 times the maximum human dose). Fetotoxicity, expressed as a decrease in average fetal weight, occurred in rats given 1200 mg/kg/day of enalapril but did not occur when these animals were supplemented with saline Enalapril was not teratogenic in rabbits However, maternal and fetal toxicity occurred in some rabbits at doses of 1 mg/kg/day or more. Saline supplementation prevented the maternal and fetal toxicity seen at doses of 3 and 10 mg/kg/day, but not at 30 mg/kg/day (50 times the maximum human dose).

Radioactivity was found to cross the placenta following administration of labeled enalapril to pregnant hamsters.

There are no adequate and well-controlled studies in pregnant women. VASOTEC® (Enalapril Maleate, MSD) should be used during pregnancy only if the potential benefit justifies the potential risk to the fetus

Nursing Mothers Milk in lactating rats contains radioactivity following administration of ^{14}C enalapril maleate. It is not known whether this drug is secreted in human milk Because many drugs are secreted in human milk, caution should be exercised when VASOTEC is given to a nursing mother.

Pediatric Use: Safety and effectiveness in children have not been established

Adverse Reactions: VASOTEC has been evaluated for safety in more than 10,000 patients, including over 1000 patients treated for one year or more VASOTEC has been found to be generally well tolerated in controlled clinical trials involving 298/ patients.

Hypertension. The most frequent clinical adverse experiences in controlled trials were. headache (5.2%), dizziness (4 3%), and fatigue (3%).

Other adverse experiences occurring in greater than 1% of patients treated with VASOTEC in controlled clinical trials were: diarrhea (1.4%), nausea (1.4%), rash (1.4%), cough (1.3%), orthostatic effects (1.2%), and asthenia (1.1%).

Heart Failure: The most frequent clinical adverse experiences in both controlled and uncontrolled trials were: dizziness (79%), hypotension (6.7%), orthostatic effects (2.2%), syncope (2.2%), cough (2.2%), chest pain (2.1%), and diarrhea (2.1%).

Other adverse experiences occurring in greater than 1% of patients treated with VASOTEC in both controlled and uncontrolled clinical trials were: fatigue (1.8%), headache (1.8%), abdominal pain (1.6%), asthenia (1.6%), orthostatic hypotension (1.6%), vertigo (1.6%), angina pectoris (1.5%), nausea (1.3%), vomiting (1.3%), bronchitis (1.3%), dyspnea (1.3%), urinary tract infection (1.3%), rash (1.3%), and myocardial infarction (1.2%).

Other serious clinical adverse experiences occurring since the drug was marketed or adverse experiences occurring in 0.5% to 1% of patients with hypertension or heart failure in clinical trials in order of decreasing severity within each category:

Cardiovascular: Myocardial infarction or cerebrovascular accident, possibly secondary to excessive hypotension in high-risk patients (see WARNINGS, *Hypotension*); cardiac arrest, pulmonary embolism and infarction, rhythm disturbances; atrial fibrillation, palpitation

Digestive: Ileus, pancreatitis, hepatitis or cholestatic jaundice, melena, anorexia, dyspepsia, constipation, glossitis.

Nervous/Psychiatric: Depression, confusion, ataxia, somnolence, insomnia, nervousness, paresthesia

Urogenital: Renal failure, oliguria, renal dysfunction (see PRECAUTIONS and DOSAGE AND ADMINISTRATION), prostate hypertrophy

Respiratory Bronchospasm, rhinorrhea, asthma, upper respiratory infection

Skin: Herpes zoster, pruritus, alopecia, flushing, photosensitivity

Other: Muscle cramps, hyperhidrosis, impotence, blurred vision, taste alteration, tinnitus.

A symptom complex has been reported which may include fever, myalgia, and arthralgia, an elevated erythrocyte sedimentation rate may be present Rash or other dermatologic manifestations may occur. These symptoms have disappeared after discontinuation of therapy

Angioedema: Angioedema has been reported in patients receiving VASOTEC (0.2%). Angioedema associated with laryngeal edema may be fatal If angioedema of the face, extremities, lips, tongue, glottis, and/or larynx occurs, treatment with VASOTEC should be discontinued and appropriate therapy instituted immediately. (See WARNINGS.)

Hypotension. In the hypertensive patients, hypotension occurred in 0.9% and syncope occurred in 0.5% of patients following the initial dose or during extended therapy. Hypotension or syncope was a cause for discontinuation of therapy in 0.1% of hypertensive patients. In heart failure patients, hypotension occurred in 6.7% and syncope occurred in 2.2% of patients. Hypotension or syncope was a cause for discontinuation of therapy in 1.9% of patients with heart failure. (See WARNINGS.)

Clinical Laboratory Test Findings:

Serum Electrolytes. Hyperkalemia (see PRECAUTIONS), hyponatremia

Creatinine, Blood Urea Nitrogen: In controlled clinical trials, minor increases in blood urea nitrogen and serum creatinine, reversible upon discontinuation of therapy, were observed in about 0.2% of patients with essential hypertension treated with VASOTEC alone Increases are more likely to occur in patients receiving concomitant diuretics or in patients with renal artery stenosis. (See PRECAUTIONS.) In patients with heart failure who were also receiving diuretics with or without digitalis, increases in blood urea nitrogen or serum creatinine, usually reversible upon discontinuation of VASOTEC and/or other concomitant diuretic therapy, were observed in about 11% of patients Increases in blood urea nitrogen or creatinine were a cause for discontinuation in 1.2% of patients.

Hemoglobin and Hematocrit: Small decreases in hemoglobin and hematocrit (mean decreases of approximately 0 3 g % and 1.0 vol %, respectively) occur frequently in either hypertension or heart failure patients treated with VASOTEC but are rarely of clinical importance unless another cause of anemia coexists In clinical trials, less than 0.1% of patients discontinued therapy due to anemia

Other (Causal Relationship Unknown): In marketing experience, rare cases of neutropenia, thrombocytopenia, and bone marrow depression have been reported.

Liver Function Tests. Elevations of liver enzymes and/or serum bilirubin have occurred

Dosage and Administration: *Hypertension.* In patients who are currently being treated with a diuretic, symptomatic hypotension occasionally may occur following the initial dose of VASOTEC. The diuretic should, if possible, be discontinued for two to three days before beginning therapy with VASOTEC to reduce the likelihood of hypotension. (See WARNINGS.) If the patient's blood pressure is not controlled with VASOTEC alone, diuretic therapy may be resumed.

If the diuretic cannot be discontinued, an initial dose of 2.5 mg should be used under medical supervision for at least two hours and until blood pressure has stabilized for at least an additional hour. (See WARNINGS and PRECAUTIONS, *Drug Interactions*.)

The recommended initial dose in patients not on diuretics is 5 mg once a day. Dosage should be adjusted according to blood pressure response. The usual dosage range is 10 to 40 mg per day administered in a single dose or in two divided doses. In some patients treated once daily, the antihypertensive effect may diminish toward the end of the dosing interval. In such patients, an increase in dosage or twice-daily administration should be considered. If blood pressure is not controlled with VASOTEC alone, a diuretic may be added

Concomitant administration of VASOTEC with potassium supplements, potassium salt substitutes, or potassium-sparing diuretics may lead to increases of serum potassium (see PRECAUTIONS).

Dosage Adjustment in Hypertensive Patients with Renal Impairment: The usual dose of enalapril is recommended for patients with a creatinine clearance >30 mL/min (serum creatinine of up to approximately 3 mg/dL). For patients with creatinine clearance ≤30 mL/min (serum creatinine ≥3 mg/dL), the first dose is 2.5 mg once daily. The dosage may be titrated upward until blood pressure is controlled or to a maximum of 40 mg daily.

Heart Failure: VASOTEC is indicated as adjunctive therapy with diuretics and digitalis. The recommended starting dose is 2.5 mg once or twice daily After the initial dose of VASOTEC, the patient should be observed under medical supervision for at least two hours and until blood pressure has stabilized for at least an additional hour. (See WARNINGS and PRECAUTIONS, *Drug Interactions.*) If possible, the dose of the diuretic should be reduced, which may diminish the likelihood of hypotension. The appearance of hypotension after the initial dose of VASOTEC does not preclude subsequent careful dose titration with the drug, following effective management of the hypotension. The usual therapeutic dosing range for the treatment of heart failure is 5 to 20 mg daily given in two divided doses. The maximum daily dose is 40 mg. Once-daily dosing has been effective in a controlled study, but nearly all patients in this study were given 40 mg, the maximum recommended daily dose, and there has been much more experience with twice-daily dosing. In addition, in a placebo-controlled study which demonstrated reduced mortality in patients with severe heart failure (NYHA Class IV), patients were treated with 2.5 to 40 mg per day of VASOTEC, almost always administered in two divided doses. (See CLINICAL PHARMACOLOGY, *Pharmacodynamics and Clinical Effects.*) Dosage may be adjusted depending upon clinical or hemodynamic response. (See WARNINGS.)

Dosage Adjustment in Heart Failure Patients with Renal Impairment or Hyponatremia In heart failure patients with hyponatremia (serum sodium <130 mEq/L) or with serum creatinine >1 6 mg/dL, therapy should be initiated at 2.5 mg daily under close medical supervision. (See DOSAGE AND ADMINISTRATION, *Heart Failure*, WARNINGS, and PRECAUTIONS, *Drug Interactions.*) The dose may be increased to 2.5 mg b.i.d , then 5 mg b i.d and higher as needed, usually at intervals of four days or more, if at the time of dosage adjustment there is not excessive hypotension or significant deterioration of renal function. The maximum daily dose is 40 mg

For more detailed information, consult your MSD representative or see Prescribing Information. Merck Sharp & Dohme, Division of Merck & Co., Inc., West Point, PA 19486. J6VS18R(815)

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A JOURNAL OF CLINICAL AND HEALTH AFFAIRS

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MINNESOTA MEDICINE
IN TRANSITION

Cover Design

TRANSITIONS We all go through them, but few can be as rocky—or as rewarding—as mid-career transitions. Yet more and more established physicians are changing direction within medicine, changing locations, or even leaving medicine altogether.

This month's cover depicts the ever-changing and refocusing path that our careers and lives take. It captures the challenge—as this month's interviewees can attest—of balancing personal goals and dreams with a career in medicine.

Artwork by St. Paul artist Kathleen Berntson.

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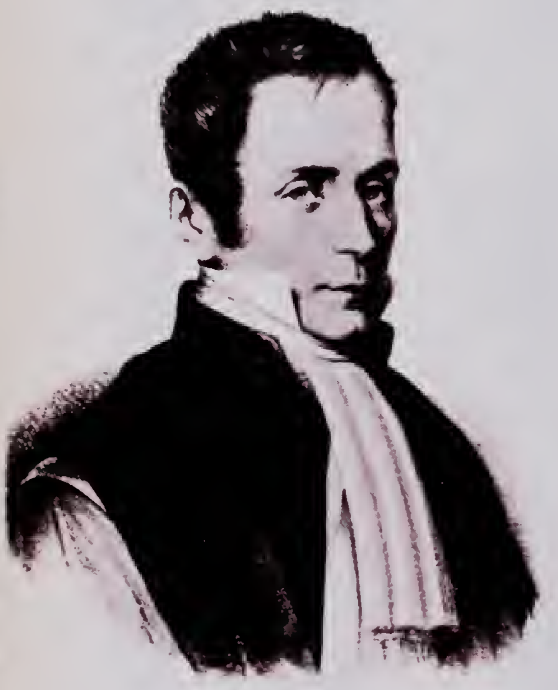

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In his time it was said that while Laënnec was "without rival in diagnosis, he was not a good practitioner," according to historians. The famous man who authored "De l'Auscultation Médiate" and developed the stethoscope had no business and marketing strategy to give his diagnostic methods credibility or build a sound practice. His findings helped to isolate the symptoms of tuberculosis, yet he was considered misguided in treatment.

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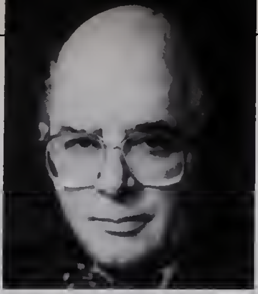


RICHARD L. REECE, M.D.

EDITOR'S NOTEBOOK

Alternatives and Tradeoffs for Physicians

For the last three or four years, I've been talking to others and thinking about alternatives and tradeoffs for physicians.

You have heard, no doubt, about more students choosing not to enter medical school, about more physicians retiring early, about more physicians confining themselves to their offices or not delivering babies so as to minimize malpractice rates, about more physicians joining the armed services or the Veterans hospital systems, about more physician practices being bought out, about more physicians joining HMOs or hospitals as salaried employees, about more physicians becoming administrators or executives, or about more physicians becoming entrepreneurial and forming their own business firms.

These are, of course, alternatives to traditional medical practices. All have up sides, down sides, and tradeoffs. All, in one way or another, reflect uncertainty, disappointment, or dissatisfaction with current practices.

More Fluidity, More Choices

One thing's for sure: medical practice is more fluid than it used to be. More choices are available. In the old world, medicine was a terminal profession—i.e., you entered practice at 30 and you retired 35 to 40 years later from that same practice. That's not necessarily the case today.

But for most of you, it's difficult to change your circumstances when you're in mid-career. You've laid down roots, you have social ties, your kids are in school with their peers, you have cultivated your patients and your referral sources, and you have a network of business acquaintances. In short, you have built a support system that's important to you and your family. It isn't easy, practical, or pleasant to pull up stakes, no matter how unhappy you are about your circumstances. Besides, you've worked long and hard to establish what you've got, and you have a certain obligation to your community.

Other Alternatives

Yet there are always other alternatives.

► You can compete for a Bush Clinical Fellowship. This is a mid-career development or renewal program whereby a dozen or so Minnesota physicians can take up to a year's paid sabbatical to regroup, to become more educated, to polish clinical skills, and to rethink the rest of their career trajectory.

In this *Minnesota Medicine* issue, I interview Jon Wempner, M.D., physician director of the Bush Clinical Fellows Program, and Dr. Peter Smyth and his wife Barbara. Dr. Smyth is now about one-third of the way through his Bush Fellowship. I have interviewed him with his wife because a Bush Fellowship affects the entire family structure, and both husband and wife had best know what they are getting into.

► You can change careers. I have spoken to many clinical headhunters and to those who have changed careers. The advice I keep getting is this: If you're going to change careers, don't abandon medicine completely. Doctors who jump out of the medical pond often find they are uncomfortable in a nonmedical or a business environment. The culture is different. Decisions are often made in the context of a team effort, they are often equivocal and ambiguous, and they are often long term rather than short term. Plus, your status is often different. Even though physicians may be seasoned in medicine, in the business world they are raw rookie executives whose skills are untested and unproven.

"In short, you have built a support system that's important to you and your family. It isn't easy, practical, or pleasant to pull up stakes."

Besides, despite physicians' complaints about declining incomes, physicians outside of medicine find they cannot duplicate their physician incomes. The prerequisites may be better, but the take-home pay is usually less.

So, the advice generally is this: Change within the context of your present clinical skills and practice, build on your strengths, and innovate by seizing opportunities within reach of your current practice.

► You can change your environment. This may entail moving to another part of the state. If you dislike working with Twin Cities HMOs, for example, you might want to move to Duluth, or to another smaller city or town. You can often do this through word-of-

Editor's Notebook *to page 78*

Secrets of Surviving Mid-life M.D. Malaise

REECE: *Dr. Wempner, for the last five years you've been director of the Bush Clinical Fellows Program. Why don't I begin by asking you about your background and how you got into this kind of work.*

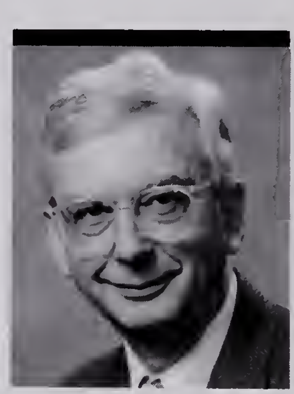
WEMPNER: I'm a family physician. I trained in Minnesota and spent my internship in Tacoma, Washington, and did a couple years in the Public Health Service. I've been practicing since 1963 in Waconia, at Lakeview Clinic. In 1979 I was feeling like a lot of physicians, wondering where I was going with my career, questioning whether I was as skillful as I should be. I saw family practice residents coming out of the training program feeling very confident. They seemed to have a lot of answers that I didn't have. I yearned to get my training updated.

In 1979 the Bush Clinical Fellows Program began, and I had an opportunity to apply. Our group was developing emergency medical services at that time. I had a twofold goal: one was to upgrade my skills in family practice, and the other was to learn state-of-the-art emergency medicine and help incorporate that in Waconia.

I was awarded a 12-month fellowship in 1979 and 1980. I found my skills weren't far removed from where I wanted them to be. I was able to upgrade my skills, and I was able to learn state-of-the-art emergency medicine. I nurtured associations with emergency medical people in the metropolitan area, and we developed relationships. Some of these emergency medicine specialists were able to come out and help us to set up a program and to develop referral relationships.

REECE: *What did you actually do during your fellowship? How much time did you take off from your practice?*

WEMPNER: I took my fellowship in one 12-month block of time. I took a leave of absence from my clinic. I attended a lot of conferences in family practice. I spent a lot of time at North Memorial Hospital with Dr. Pat Lilja and at Hennepin County with Dr. Ernie Ruiz and Dr. Joe Clinton and their group. I visited Methodist Hospital and other emergency rooms. I toured emergency rooms in California. And I developed an interest in physician education.



JON D. WEMPNER, M.D.

Wempner *to page 109*

If you're a middle-aged physician, you may suffer from an increasingly common syndrome: M.D. Malaise. If I were a punning man, I might describe this syndrome as that "M.D. feeling." Whatever you call it, it's the sensation of being intensely dissatisfied with your career, of feeling trapped or bored with a role that doesn't meet your expectations, of being cornered by competitive pressures, of being overwhelmed by economical or technological circumstances beyond your control that demand skills you don't possess, or of feeling empty because you've failed to live up to your vision of your own potential.

How do you survive this "M.D. feeling"? One way is to take a Bush Clinical Fellowship, a paid sabbatical for mid-life physicians who want to increase their skills or knowledge, to rethink careers, or to contribute something back to their profession and community.

Anyway, to get a fix on the value of a Bush Clinical Fellowship, I interviewed Jon Wempner, a family practitioner from Waconia, who is in charge of the Bush program. The interview came at a good time. The Bush Foundation has just completed a study of the program, now 10 years old. So Jon was full of fresh and authoritative answers.

Jon is a Bush Fellow himself, and he knows of what he speaks. He deeply believes in the value and perspectives of a mid-life sabbatical. When Jon talked, I listened, for he was wise with words and feelings.

He knows, better than I, that if you bury your head in the clinical trenches, you may miss a larger world and what you can contribute to that world. But at the same time, Jon knows you have to keep one foot in the foxhole to remain credible as a physician leader. Better still, keep both feet planted there, and you will become, as Jon has, a leader of leaders.

It Takes Two: A Husband-and-wife Interview

REECE: *Peter and Barbara, this is the first interview I've done with a husband and wife physician and spouse in the history of* Minnesota Medicine. *How do you two like your lifestyle in Glencoe, a town of 5,000 an hour from the Twin Cities?*

DR. SMYTH: Basically, we like where we live. We use the Twin Cities for shopping, cultural and sports events, and for the University. It's an hour trip, so we can easily be in and out of Minneapolis or St. Paul in one day.

REECE: *Barbara, you're from a northern-Chicago suburb. Have you adjusted to the rigors of the Minnesota countryside?*

MRS. SMYTH: Yes. The small town enables the children to participate in a lot of activities. I absolutely love Minnesota.

REECE: *Even though we have a reputation for being a difficult state in which to practice medicine?*

DR. SMYTH: I'm quite happy with my medical practice. You think you can always be happier when you see the stories about what goes on in Minnesota as compared with other parts of the country, but our family enjoys a nice lifestyle in Glencoe.

Medical practices have grown much more complicated. Given competitive pressures, dropping expectations, and third-party interventions, traditional communications between marriage mates may not be enough for mutual understanding as to what makes a medical practice or a medical marriage grow.

Medical husbands and wives need more information to work together more closely, to learn more about how to deal with increasing economic and litigation pressures, to make more conscious and considered marital and career choices, and to plan their collective lives more carefully.

To get a better handle on what medical couples are experiencing, I interviewed Dr. Peter Smyth and his wife Barbara, of Glencoe, Minnesota. Dr. Smyth recently accepted a Bush Clinical Fellowship. During his mid-career sabbatical, he and his wife have talked about where they are in their lives and and their careers.

Peter is a 43-year-old general internist in Glencoe, 12 miles from his birthplace. Barbara is his soulmate and helpmate. She devotes much of her energies to maintaining the household and to caring for the Smyth's three children. The rest of the time, she serves as a busy volunteer in multiple community activities.

Both of them looked at Peter's Bush Fellowship as a mechanism for them to grow as a couple, as a way for him to develop his clinical and leadership skills, and as a means for them to plan their life together so they could pay something back to Glencoe.

This interview tells the story of what's happened to the Smyths in the first year of the Bush Fellowship.

PETER AND BARBARA SMYTH

REECE: *Last year, in early 1987, you applied for and were awarded a Bush Clinical Fellowship. You have elected to take a three-year program. You're now well into your first year.*

DR. SMYTH: Yes.

REECE: *The Bush Clinical Fellowship is a mid-career development program. Did your mid-career need to be developed? Why did you take this fellowship?*

DR. SMYTH: I practice general internal medicine with a small group in Glencoe. Our practice is changing, and I wanted to take an opportunity to go back into an academic environment to open up opportunities for our practice. My fellowship will be eight months, taken intermittently over three years. I'll spend the eight months doing different things—one month of intensive care/coronary care unit work, one month in geriatrics, one month in industrial medicine, a month of administrative medicine, and a month of gastroenterology. I even have a month of Spanish,

continued

because we have so many migrant workers in Glencoe.

REECE: *So you will be the sole physician in Glencoe who speaks Spanish?*

DR. SMYTH: There are no physicians or any active health care practitioners who speak Spanish in Glencoe. I doubt I will become fluent, but at least I will be able to talk to patients in the emergency room.

REECE: *How do you learn Spanish in a crash course?*

DR. SMYTH: I'm taking different approaches. I have gone to a Spanish immersion weekend offered by St. Scholastica College in Duluth, and I've used independent study tapes. Right now I'm 20 percent of the way through my Spanish endeavors. Maybe in a couple years we can try this interview in Spanish.

REECE: *When you complete this eight-month stint spread over three years, what do you hope to contribute back to your community? Why will you be more valuable to your community?*

DR. SMYTH: I have both personal and community reasons for doing this. I hope I'll be more valuable to my community in that I've been able to update the intensive care unit. I'll know more about thrombolysis, physiologic monitoring, gastroenterology, endoscopy procedures, and industrial medicine. Many small businesses in and around Glencoe are asking us about new services, and we really aren't prepared to answer their questions. It's good business for our clinic to be able to market our services to small companies. On the community service side, there will be a real need for Spanish-speaking people in health care. We have a large packing company in Glencoe with many Spanish-speaking seasonal employees.

Now for the personal side. I've been in private practice for 10 years. The Bush Fellowship allows me personal time professionally and for my family. Our children are at an age where we can do some traveling. I'm hoping to go to England to study geriatrics. All in all, this is a good time in my life to take a sabbatical. I'm looking forward to it personally, and we're looking forward to it as a family.

REECE: *Barbara, how has this sabbatical affected you?*

MRS. SMYTH: So far, when Peter's taken the time off to go to the training, I've actually seen him a little bit more around the house. It's been nice to have a little more family time. This Bush Fellowship has forced us to become more circumspect.

"I credit the Bush Foundation for making me pause to think about my career. It's caused Barbara and me to plan a little more concretely than we have in the past."

REECE: *So the fellowship has focused your thinking on certain things you have to do?*

DR. SMYTH: Yes, physicians tend to get up in the morning, put their stethoscope in their pocket, and walk out the door to go to work without thinking about where they are in their career or in their life or in their family's life. I credit the Bush Foundation for making me pause to think about my career. It's caused Barbara and me to plan a little more concretely than we have in the past.

REECE: *So now you're consciously thinking about your career and your life and where you want to go?*

DR. SMYTH: Two events in the Bush Fellowship have made us actually think about our lives and my career. One is just filling out the application and the initial interviews, and the other is the "Physicians in Transition" seminar at the Menninger Clinic, which is recommended for all Bush Fellows and their spouses.

The application resembles the one we all filled out for medical school. It's time consuming and thought provoking and entails a lot of writing about your life. I even had to write a book report.

REECE: *I understand your wife has to read and approve what you wrote and to sign off on it. Did the application reveal any secrets you had hidden from her?*

DR. SMYTH: No, but the Bush Foundation does have a place on the application where the spouse has to read and endorse the application. The spouse also is invited to all of the interviews and events put on for the people who get the fellowships.

REECE: *So your wife went through the final interview gauntlet with you? And she attended the retreat for the new Bush fellows?*

DR. SMYTH: Yes. The interviews are private. But during the interview days, spouses are invited. It's important for them to come, because the Bush officials do a lot of explaining about the Bush Clinical Fellowship, about what will happen on a sabbatical, and about the impact the sabbatical will have on the spouse and family.

REECE: *And after you're accepted, the Bush Foundation encourages the husband and wife, the spouses, to go to the Menninger Clinic for an intensive, five-day seminar called "Physicians in Transition." What was your impression of that five-day seminar, Barbara?*

MRS. SMYTH: The Bush people strongly recommended that spouses go along, and I heartily agree. It was fascinating. They told us about going through your life cycle, both psychological and physical. The information was something you can use whether you're a doctor or in another career or a professional volunteer. It helps put your entire life in perspective. It's definitely a must.

REECE: *Did it confirm your view of yourself or radically alter it?*

MRS. SMYTH: I can't say it confirmed or altered my view of myself. But it made me ask where I'm going and what is the best way to reach this place. Before, I hadn't even realized how much of my day-to-day life was dictated by my life cycle. The five days give you time to stop and think about how you are doing. Are you really going in the right direction? Are you being too selfish or too generous with your time and energies? Perhaps you are headed in the right direction, but there are some areas you might want to concentrate on more.

REECE: *Does it jolt you into the realization that other people are preoccupied with things you thought were your own special problems?*

MRS. SMYTH: Exactly. There was one expression I heard numerous times: "I thought I was the only one who was running into these problems."

REECE: *Peter, did you have the same feelings?*

DR. SMYTH: Yes. Barbara and I did not go to the Menninger Clinic with a sense of turmoil in our lives. But a lot of the physicians there were in tremendous turmoil. Some of it related to medicine, some of it related to their personal lives. For us, the experience confirmed the fact that everybody has problems. Physicians, especially, often have difficult times dealing with problems, whether they are personal, medical malpractice suits, adverse reimbursement systems—events that anger us from day to day, events we feel ourselves floundering in because we don't control them. The week at the Menninger Clinic, while it doesn't solve any of those problems, at least it puts them in perspective, so you don't become so angry.

REECE: *Each Menninger group has about 24 people. Is that 12 couples?*

DR. SMYTH: Most people in our group brought their spouses, although many didn't. By the end of the week, they said they wished they had.

REECE: *Were any doctors in your group suffering the psychological ravages of malpractice suits?*

DR. SMYTH: Yes. Others had personal problems. Still other physicians had to retire for health reasons. Some physicians had found themselves suddenly widowed with teen-age children. Some physicians were just basically unhappy and frustrated. They wanted out of medicine or into a different practice. At the end of the week, some of those physicians found they didn't have it so bad. Their practice was fine, and they were going to stay. Others decided that leaving would be the right thing for them.

REECE: *Are physicians suffering their midlife malaise due to rapidly accelerating change, and because the world is not meeting their expectations?*

DR. SMYTH: Yes. All of us get to a certain point in our lives when sooner or later you realize you are what you're going to be. Many physicians find it difficult when they wake up one morning and make that discovery.

REECE: *And it's not who they wanted to be?*

DR. SMYTH: Right. When you're

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not who you wanted to be, but you are what you're going to be, it can be devastating.

REECE: *That sounds profound to me, like something a transcendental mystic could say.*

MRS. SMYTH: Not really. I was thinking about two fellows in the group. They were talking about how they had had all these great expectations in medical school. They were going to be getting such recognition, they were going to get such papers written, they'd be known all across the country. Now they are reaching their mid-40s, and it was suddenly hitting them that their dreams were not going to happen. Now where do they go? They have to readjust their lifestyles and get along with the people they have become.

REECE: *Did you come back from this trip satisfied with your choice to live in an exurban community within an hour of the Twin Cities? You are, after all, a big duck in a small pond who can also splash around in the big pond.*

DR. SMYTH: Yes. Some small-town physicians feel trapped and unable to leave. We don't share that feeling. We control our lives.

> **"Some small-town physicians feel trapped and unable to leave. We don't share that feeling. We control our lives. Too many physicians let their practices or third parties control them."**

Too many physicians let their practices or third parties control them. The week at Menninger tried to put you back in control of your life. The lectures spanned everything from the emotional difficulties with caring, personal health, relationships with spouses and other people, and if you came away with anything it was the fact that you have to be able to control your life. I may not like where I am right now, but maybe it's not any better anywhere else.

REECE: *Do you look forward to the remaining two years of your program?*

DR. SMYTH: Yes. We're putting our plans in order. I will be taking time off in increments over the next two and one-half years. We're really looking forward to it, especially the travel and new experience. The Bush Foundation has allowed us an opportunity. There simply wouldn't have been the opportunity, nor would I have taken the time, to do some of these things, if I had not been allowed to by the Bush Foundation. ■

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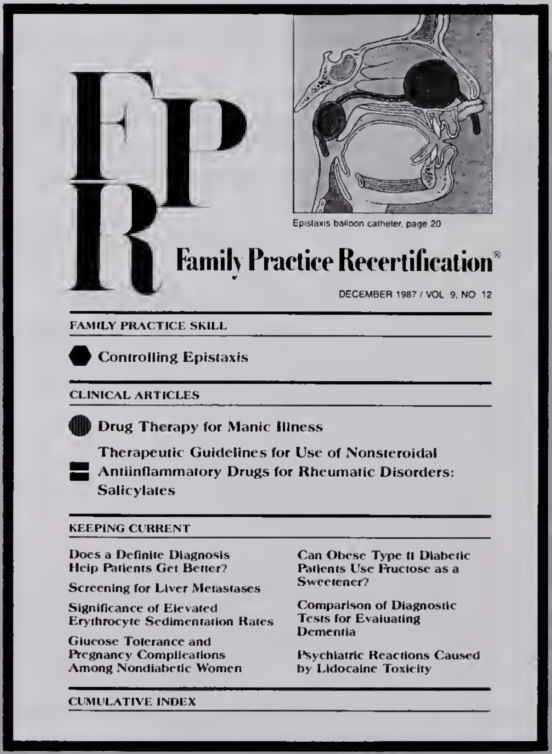

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Glucose Tolerance and Pregnancy Complications Among Nondiabetic Women

Can Obese Type II Diabetic Patients Use Fructose as a Sweetener?

Comparison of Diagnostic Tests for Evaluating Dementia

Psychiatric Reactions Caused by Lidocaine Toxicity

CUMULATIVE INDEX

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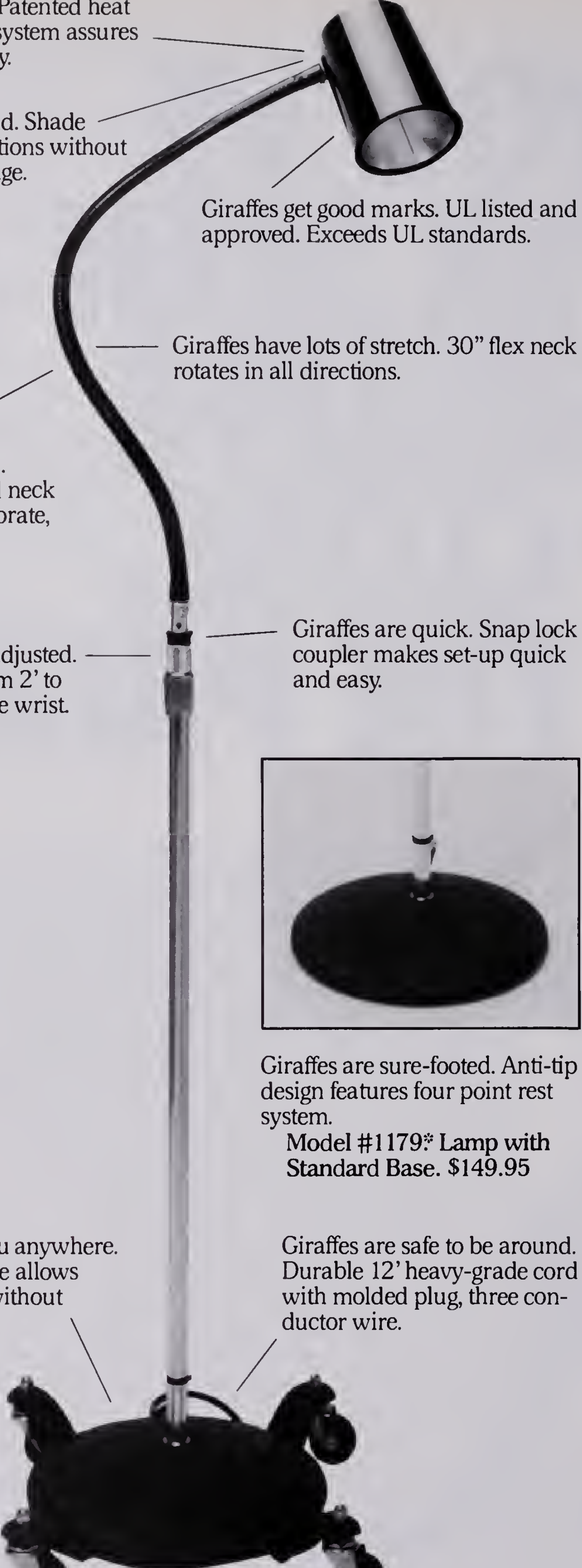

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LETTERS TO THE EDITOR

More Scientific Articles!

I am writing to voice my negative reaction to the change in format of *Minnesota Medicine.* I feel that this journal should remain a scientific journal, to which the physicians in the state may submit scientific articles to share with our colleagues.

I do not feel that the change toward a political-health issues format has been a wise move. I think that this type of article should still find its place in the journal, but I find myself reading *Minnesota Medicine* less now.

David S. Arvold, M.D.
Department of Internal Medicine
The Duluth Clinic, Ltd.
Duluth, Minnesota

When I moved to Minnesota thirteen months ago, I was pleased to find a state medical journal that was publishing scientific articles, largely from the medical community of the state.

The last few issues have been of much less interest.

I would encourage the Minnesota Medicine Advisory Committee to consider a return to editorial policies emphasizing scientific publications and research reports from the Minnesota medical community.

David L. Camenga, M.D.
The Duluth Clinic, Ltd.
Duluth, Minnesota

Editors' Note

We do want to hear readers' reactions to the mix of clinical articles, socioeconomic news, and editorial commentary featured in *Minnesota Medicine* each month. We try to include a variety of information that will be useful and interesting to our readers throughout Minnesota—and in other states and countries, as well.

To set the record straight: We do publish clinical and research articles in *Minnesota Medicine.* Some are invited articles; others come to us unsolicited. We accept manuscripts for review twice each year—during the first two weeks in January and the first two weeks in June. If you submit clinical and research manuscripts at other times, we will return them to you and invite you to resubmit at the designated times.

We invite you to submit at any time essays, letters to the editor, and reports and commentary that do not require peer review.

We appreciate your interest in *Minnesota Medicine* and want to hear your comments.

The Editors

Opposing the RCT Proposal

Both the media and professional associations have given much attention to the American Medical Association's proposal for registered care technicians. The American Association of Occupational Health Nurses met in May 1988 with other professional nursing associations in an unprecedented show of unity to address the nursing shortage as well as to respond to the AMA proposal.

In support of the American Association of Occupational Health Nurses' stand opposing the registered care technician (RCT) proposal, the Minnesota Association of Occupational Health Nurses (MAOHN) opposes any such legislation to introduce the RCT concept in Minnesota.

We strongly urge the Minnesota Medical Association to support measures to strengthen the nursing profession by making nursing more attractive in terms of adequate compensation, working conditions, and autonomy. Nursing education, including expanded LPN and RN programs, as well as training ancillary staff (aides, clerical help, dietary personnel, and transport personnel) needs support. Rather than further fragmenting an already complex issue by the introduction of a new category of health care giver, support of the above issues can enhance the quality of nursing care being delivered to patients and allow nurses to practice bedside nursing.

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on Employment of the Handicapped
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Editor's Notebook

from page 69

mouth contacts or by making your availability known through your specialty society or through your medical school friends. You may want to ask multi-hospital chains if they are in the market for physicians. Many Twin Cities hospital corporations have become the recruiters for their medical staffs and may tell you promptly what kinds of specialists they need, in what location, and under what terms.

You may want to move out of state. For this you can use medical search firms, or use the word-of-mouth network, or read the want ads. Many search firms know that Minnesota has a surplus of well-trained and competent physicians and advertise in local medical publications to attract them. You may be surprised to learn there are many attractive middle-sized cities throughout the United States that are actively searching for doctors because they are physician-short, or because they are developing regional medical centers or centers of excellence requiring specialty skills. For example, I was recently in St. Joseph, Missouri, an attractive river town of about 75,000 about 70 miles north of Kansas City. I learned the hospital there, Heartland, was actively recruiting 15 to 20 physicians a year and planned to do so for the next five years. Similar opportunities exist in similar cities all across the nation.

► You may choose to become a medical executive. Many physicians are leaving practices to enter full-time management or consulting positions. Membership in the Tampa-based American College of Physician Executives is exploding. The college will soon have over 5,000 members, a fourfold growth in five years, and will have a certifying board. There are, perhaps, 100 such executives in Minnesota, and most are medical directors of hospitals, large medical groups, HMOs, or health plans.

Many alternatives exist. Each entails tradeoffs—and opportunities. ■

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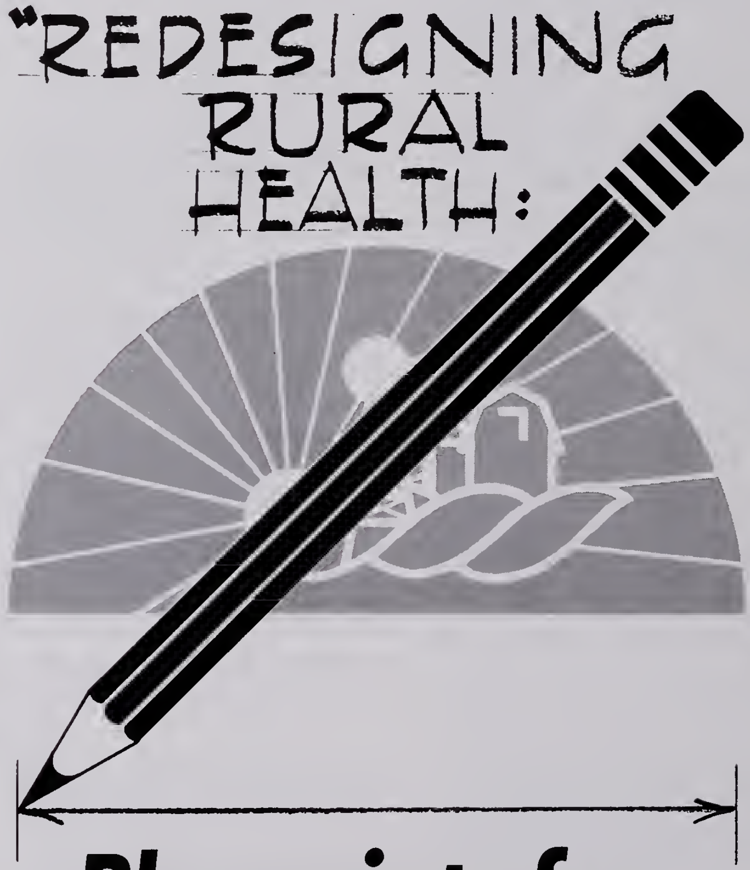


Blueprints for SUCCESS"

National Rural Health Association
12th Annual National Conference
April 30-May 3, 1989
Reno, Nevada

What Doctors' Work is All About

Ramsey County Medical Society's mini-internship program was established as a teaching tool. By allowing people from various walks of life to observe physicians for a couple of days, the program teaches the public what doctors' work is all about. One of the program's major goals was to allay misperceptions the public may have toward physicians.

While this month's feature story (page 85) explains the hows and whys of the program—and offers some insight into the participants' reactions—these three perspectives pieces allow some of the "mini-interns" a chance to describe in their own words what they came away with and how their attitudes may have changed or their awareness may have heightened.

From the News Room

Nancy Livingston

Doctors start operating before the sun comes up, don't eat lunch, love an audience, are constantly learning, and are totally engaged by their work. These are the major impressions I received after two days of shadowing four doctors as part of the Ramsey County Medical Society's mini-internship program.

Those two days were exhausting, but also exhilarating. The four doctors to whom I was assigned work in areas that are incredibly different—plastic surgery, pediatric emergency medicine, radiology, and community clinic medicine. But they share a commitment to providing the best patient care possible. My first day was probably the most dramatic. Told at a Sunday-night orientation dinner that I would be watching a surgical breast reconstruction the next morning, I could hardly sleep that night. Before the sun was up, I found myself in the doctors' lounge at St. Joseph's Hospital wearing the unattractive green clothes that are the great leveler in medicine; everyone in those scrub suits looks alike.

The attitude was casual, and I found that surgical conversations tend to be cryptic: "How does it look? It looks good." A momentous, red-letter day for the patient is just another day of surgery for the surgeon.

Dr. James Foley, the plastic surgeon, told me that this would be at least a "four-tape operation." He was talking about the taped music of Joan Baez, Bob Dylan, Paul Simon, and the three best violinists in the world playing Vivaldi and Mozart. A nurse was in charge of changing the tapes during the next five hours.

I watched Foley and a surgery resident scrub in, and my heart was pounding as we walked into the operating room. Was I up to this? I had never seen any kind of surgery before. Would I faint?

Foley's attitude helped; he seemed confident that I could handle this experience. I was told that I could stand on a little stool near the patient's head. "If you fall, fall backward," a nurse said.

I braced myself for the first incision. Seeing the pained look on my face, a nurse said she never like the first incision, either. But once the scalpel went in, I couldn't tear my eyes away. I became absorbed in that surgeon's problem, and time just flew by. Foley worked with a casual confidence that was amazing to me. Most stunning of all was when he moved the abdominal flap from the patient's stomach through a tunnel of skin up to the patient's breast. I couldn't believe it. Suddenly, there was a breast where there had been none before. This patient's body and her life were being changed.

As Foley stitched in the new breast, futzing with it to make it symmetrical with the intact breast, I finally found a stool to sit on. By noon I was exhausted from lack of sleep and constant standing, but the surgical team was still going strong. Sometime after noon, I had to leave to go to my second assignment—the emergency room at

Children's Hospital of St. Paul.

As luck would have it, I picked a quiet afternoon to visit the ER. All morning, things were frantically busy, but when I showed up, everything ground to a halt for some reason. Emergency medicine is like that, the staff explained. Some think it has to do with phases of the moon.

I spent much of the afternoon talking with Dr. Susan Asch about the challenge of taking care of 25,000 emergency patients a year. The child abuse victims who keep returning again and again for treatment are the ones that make her sad—and angry. Another troubling thing is that adequate food, housing, and nurturing are just not available to many children. Recently, Asch treated a baby for pneumonia, and it turned out the child was living in a car with his mom and dad, who were 17 and 18 years old. She called Child Protection, but there was nothing that agency could do.

The only patient who came in the day I was there was a 4-month-old boy brought in by the St. Paul paramedics. Previously, he had been diagnosed with whooping cough. His mother, who looked about 15, said she had given up custody to the baby's father and she had custody of their daughter. I was sad for the children.

Early the next morning, I reported to the radiology department at United Hospital, where Dr. Jack Marta showed me all the Star Wars technology. I was impressed with all the highly technical machines that are available for taking pictures of a person's body.

He also let me heft the heavy lead aprons that the radiologists sometimes wear. No wonder they have back problems.

I thought the new room for mammography patients looked feminine and comfortable. Marta told me women can get mammograms for $50, and I thought that sounded like a good deal.

After the hospital tour, Marta took me to his office next door. That building is really beautiful—especially the lobby with the skylight that lets all the natural sunlight in.

Then he introduced me to Magnetic Resonance Imaging (MRI), and I was amazed. Those magnets are so strong, you have to remove your watch and your credit cards when you go near them. One doctor (who shall remain nameless) told me later that he once had to have MRI, and when they put him in that big doughnut-shaped machine, he got so claustrophobic they ended up having to give him intravenous medication to calm him down. The patients I saw, however, were doing pretty well.

The rest of the morning I spent watching Dr. Marta read X-rays and MRIs. He calls it "The Land of the Shadows."

That afternoon I was scheduled to join Dr. Carolyn Borow of the West Side Community Health Center. I called and asked to meet her for lunch, but she had a meeting and was too busy. I can't figure out when doctors eat lunch.

When I finally caught up with Borow, she was seeing patients in the busy community clinic on St. Paul's West Side. I was impressed with the wide range of problems she must deal with. In one room, she performed a minor surgical procedure (lancing a boil-like growth) and in the next, she squatted on the floor with a depressed Hmong woman who had a backache. Between patients, she opened mail, arranged to induce the labor of a pregnant woman who was past her due date, and talked with staff. She seemed acutely sensitive to the varying economic needs and cultural differences of her patients.

After putting in incredibly long days, Borow often has to go out at night, too, to deliver babies or attend evening meetings. Her husband and young son don't see her as often as they would like. But, Borow, like the other doctors I observed, says she derives great satisfaction from her work.

CRAIG LASSIG

Reporter Nancy Livingston

> **"I found myself in the doctor's lounge at St. Joseph's Hospital wearing the unattractive green clothes that are the great leveler in medicine; everyone in those scrub suits looks alike."**

Nancy Livingston is an education reporter for the St. Paul Pioneer Press/ Dispatch. *At the time of her mini-internship, she was covering fitness and health issues.*

From the Other Side of the Fence—Managed Care

Ann Commerford Robinow

Curiosity, clinical interest, and the desire to understand more about the issues physicians confront in dealing with the managed care industry, led me to participate recently in the Ramsey County Medical Society's mini-internship program. Because my interactions with physicians are generally limited to corporate settings, I jumped at the chance to evaluate the impact of managed care in action. During the two days I spent with physicians at work, I saw caring, dedicated professionals who greatly enjoyed and were challenged by roles in patient care, while they worked around the frustrating and often puzzling infrastructure of the health care delivery system.

Although the physicians with whom I spoke had more than a passing interest in the financial side of health care, their overriding concerns focused on patient care. I found this both reassuring and troubling—reassuring because individual patient needs should be of the utmost importance; troubling because solving the financial issues of health care delivery in this country will require a broad-based commitment on the part of physicians that does not appear to exist today.

The physicians I observed seemed to feel they had the ability to have a substantial, positive impact on their patients' health, but each seemed pessimistic about his ability to have any appreciable impact on the total cost of health care. Having observed firsthand the tremendous complexity of the institutions in which medicine is practiced, I now more clearly understand this attitude.

During my two days, I spent time with physicians in diverse specialties and in diverse practice settings. The issues facing each of these physicians cover an equally broad range. Despite their diversity, when asked how managed care systems should approach cost-saving strategies, these physicians agreed on two points. First, they agreed that patients should bear some financial responsibility for health care decisions. Competition, system complexity, and financial incentives simply do not encourage physicians to resist patient demand for services. Patient demand for necessary, discretionary, and even clearly unnecessary, services was evident and overwhelming to me in just two days. It was just as obvious that the physicians had no interest in being the "bad guy" in the eyes of their patients. In many cases, the opportunity to discourage services of questionable necessity is also limited.

> **"I saw caring, dedicated professionals who greatly enjoyed and were challenged by roles in patient care, while they worked around the frustrating and often puzzling infrastructure of the health care delivery system."**

Tort reform for malpractice cases emerged as a second area of common concern. Physicians must be able to provide appropriate care without the excesses generated by defensive medicine.

I made several observations during my two-day stint as a "mini-intern":

► Physicians need to recognize and deal productively with the reality that health care costs are potentially crippling to the private and public sectors. The debate over whether physicians have caused this cost problem is moot; they *will* have to be part of the solution. Managed care systems may continually change their form, but they are not likely to disappear. Physicians have the opportunity, and arguably, have the obligation to their patients, to shape managed care into a system that will best promote quality health care.

Not surprisingly, physicians feel a great deal of hostility toward the perceived goals of managed care. I saw that to obtain the care they believe necessary for their patients, physicians spend a lot of time searching for ways to circumvent the barriers put in place by payers, Medicare, Medicaid, and HMOs.

It should be abundantly clear to anyone seeking to manage the growing cost of health care that no strategy can be more than minimally productive without the support and cooperation of the physician. This means reworking incentives for both the providers and the patients.

► While inpatient admissions have been reduced to a minimum, delivery of health services remains fraught with inefficiencies, many largely beyond the control of even the most cost-conscious physician. Although physicians may work long hours, their use as a medical resource is not maximized. Ineffi-

CRAIG LASSIG

Select Care's Ann Commerford Robinow

cient clinic operations, the necessity for "stand-by" service capability, travel time, scheduling issues, patient preparation delays, and (as physicians are quick to comment) time spent meeting government and health plan requirements, all contribute to less than full utilization of valuable (and expensive) physician resources. Devoting resources to maximizing physician productivity in both the inpatient and the outpatient setting could help to provide increased availability of health care resources without necessitating additional cost or longer hours for physicians.

► Despite the turmoil of recent years, the decrease in physician autonomy, and the reduction of financial rewards, the practice of medicine continues to look like a very desirable occupation. I observed physicians working on challenging problems in a collegial atmosphere with the opportunity to have a fairly immediate positive impact on the lives of their patients.

► The Ramsey County Medical Society mini-internship program is clearly heightening community sensitivity to physicians, as it was designed to do. For nonclinical employees of health plans in particular, it is tremendously beneficial to move health care delivery from the theoretical to the practical, if only for a short time.

"Managed care systems may continually change their form, but they are not likely to disappear."

► Finally, ongoing dialogue is important. I extend a reciprocal invitation to practicing physicians to spend a block of time observing the managed care system at work. This would involve more than the usual one or two hours at a Utilization Review/Quality Assurance committee meeting, or representation at a board meeting. I propose that physicians have an opportunity to observe what the managed care industry really is about: bringing together the buyers and sellers of health care, seeking solutions for the concerns of the corporate purchaser while balancing these with the complexities of the health care delivery system.

Ann Commerford Robinow is director of provider affairs at Select Care, a Minneapolis preferred provider organization.

From the Mayor's Office

Steve Proeschel

On November 14 and 15, 1988, I had the pleasure of participating in Ramsey County Medical Society's mini-internship program. Although my responsibilities as an assistant for intergovernmental affairs to St. Paul Mayor George Latimer do not routinely deal with health care issues, I was eager to learn more about the current issues in this field. Much to my surprise, I found that the two-day experience not only satisfied my intellectual curiosity, but also provided me with some valuable insights that will assist me in my job duties.

I spent my first morning at the Midwest Surgical Center with Dr. C. Randall Nelms, an otolaryngologist. This particular morning was dedicated to outpatient surgery in the building's four-room surgical center. Although I was aware that outpatient surgery was becoming a common practice, I was amazed at the degree to which it is reshaping medical practice.

In the span of several hours, more than a dozen patients were operated on and sent home. While recalling my own tonsillectomy that involved a three-day hospital stay 20 years ago, I watched Dr. Nelms perform the same operation on a young boy who left the surgicenter that morning. I followed several patients through the recovery room and was impressed by the detailed instruction given to family members to avoid potential complications later.

Outpatient surgery provides a real cost savings to patients and enables them to heal in the comfort of their own homes. However, it gave me a greater appreciation of the financial difficulties facing many hospitals as they struggle to remain open while their bed populations decline.

I entered an entirely different environment that afternoon when I visited Dr. Carolyn Borow at the

West Side Community Health Center. We spent most of the afternoon seeing Southeast Asian women who frequent the clinic. This experience was valuable to me, because Mayor Latimer has recently launched a major initiative to assist approximately 15,000 Southeast Asians in the St. Paul area in making a successful transition into their new community. It was interesting to note the vast cultural differences and the flexible approach physicians had to take to accommodate their new patients.

Dr. Borow explained that pregnant Southeast Asian women have started coming to the clinic only after a level of trust had been established between doctors and a few members of the Southeast Asian community. Many of the women refuse to come in for all of the traditional prenatal visits and tests. The health clinic staff often defers to the wishes of the women in the belief that the opportunity to provide some level of treatment is better than none—that is, if the women do not come to the clinic at all.

After this short visit, it became clear to me that it will take an extraordinary commitment from both the public and private sectors to assist this new population in its acculturation to American society. At the end of the day, I met with the clinic's executive director, Gary Sande, to explore ways in which St. Paul can support state funding for community clinics during the 1989 legislative session. After watching the clinics work and observing the needs they meet in our community, it was easy for me to recommend to Mayor Latimer that we include this request in our legislative package.

MAYOR'S OFFICE
GEORGE LATIMER

CRAIG LASSIG

Assistant to the Mayor Steve Proeschel

On the second morning of my internship, I enjoyed a little bit of the "human side" of the doctor's world when I joined plastic surgeon Jim Foley. Dr. Foley is an outgoing guy whose love for his work was obvious. As he explained a particular procedure or ailment, he often stopped to exclaim, "Isn't this amazing?!" Before performing surgery at St. Joseph's Hospital, he relaxed the OR staff by playing "some great new tunes" on a tape player as the staff scrubbed up.

> **"I came away with a real appreciation for the issues facing doctors in Ramsey County."**

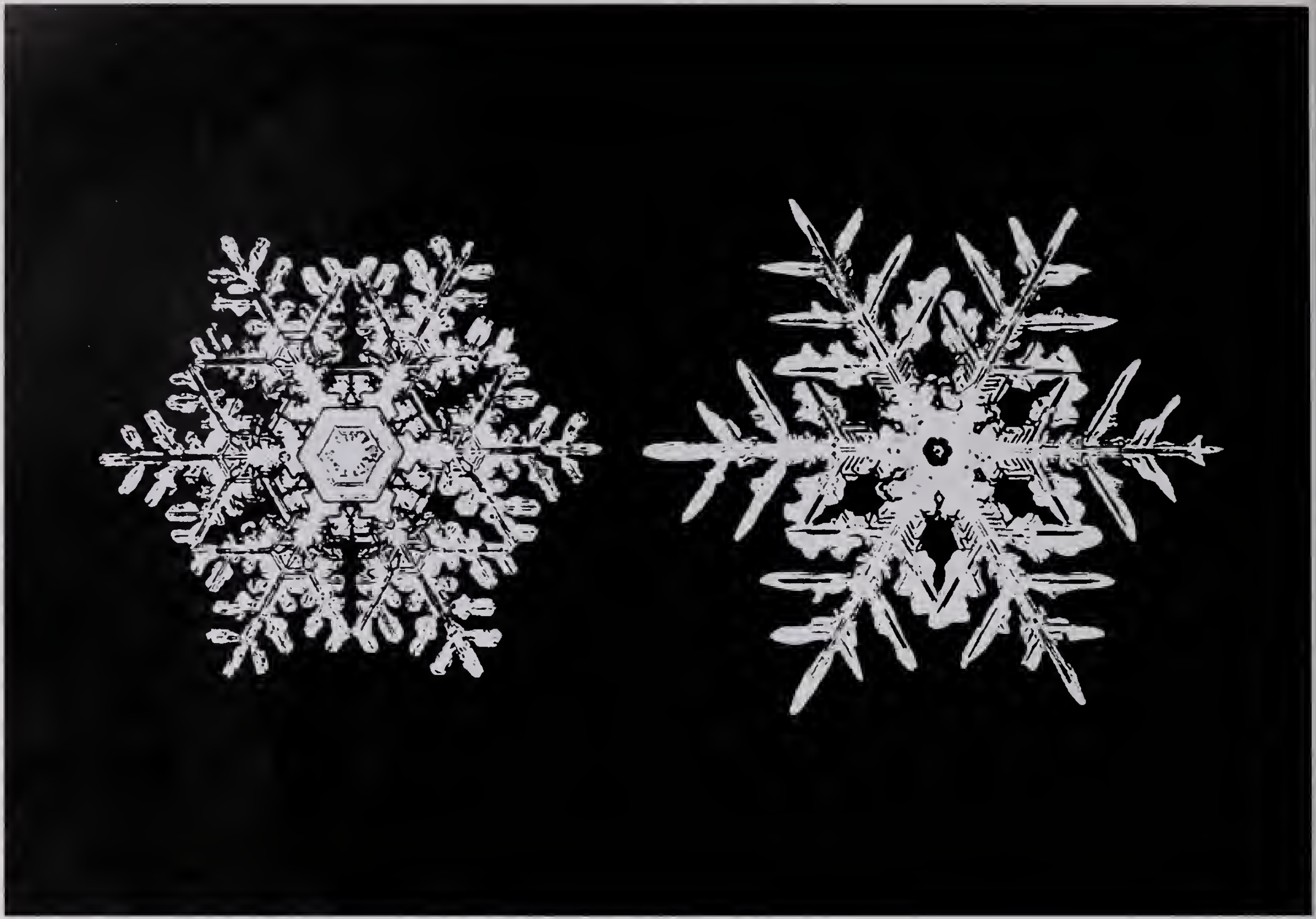
It was fun to see this lighter side of Dr. Foley (and the other doctors I worked with) as well as his technical expertise. Like many other people, I have always had the impression that doctors are very serious, somewhat self-absorbed people. The internship gave me a new perspective on the personalities of doctors.

My internship ended on a more sober note with Doctors Susan Asch and Debra Smith-Wright at the St. Paul Children's Hospital Emergency Room. Shortly after I came over, a badly abused child came into the emergency room. Most of the afternoon's discussion revolved around the dozens of child abuse cases the ER staff sees each month. The staff's frustration at "the system" for failing to properly intervene and prosecute child abuse cases was very strong.

I have had some involvement in the city's work with Ramsey County to improve the arrest, prosecution, and intervention efforts in domestic abuse cases. This work has taken on a new meaning for me after actually seeing the condition some of the children were in when they came into the emergency room.

I enjoyed my mini-internship experience tremendously. As someone who spends a portion of his time as a "lobbyist," I have to congratulate the Ramsey County Medical Society. The mini-internship program is an excellent tool for "constituency building" that is handled very professionally. I never felt as though a point of view or opinion was being forced on me, yet I came away with a real appreciation for the issues facing doctors in Ramsey County.

Steve Proeschel is an assistant for intergovernmental affairs to St. Paul Mayor George Latimer. His work involves lobbying for St. Paul at the metropolitan, state, and federal government levels.



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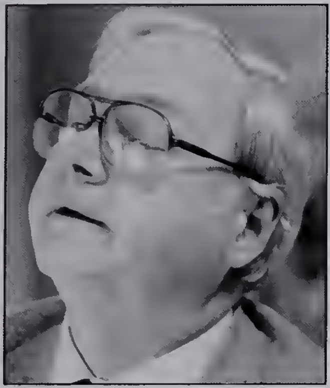

Charles Frye, M.D.

Carolyn Borow, M.D.

Wayne Thalhuber, M.D.

DOCTORS ON DISPLAY

Most doctors can take ribbing about their work as well as the next person. But innocent fun-poking doesn't hurt the profession's image like media bias can and does. Physicians these days worry that bad press will cause consumers to blame doctors for soaring health care costs and delivery system injustices. Increasingly frustrated with the situation, members of the Ramsey County Medical Society (RCMS) sought relief, according to Kathy Welte, the society's executive director.

''Our members see more and more articles about the high cost of medicine, implying that physicians are largely responsible for that. They think physicians are often viewed as uncaring and overly concerned with financial matters, and that's their perception of how physicians are portrayed in the media,'' Welte said.

RCMS doctors felt boosting public awareness could help solve the public relations problem, she said. To accomplish the goal, they wanted to capture a fantasy commonly entertained by the misunderstood. Perhaps you've shared the thought: ''If only they could spend a day in my shoes . . .''

PETER J. KIZILOS

photographs by Rob Levine

Well, RCMS has come up with the next best thing. In January 1987, members of the Ramsey County Medical Society's Community and Media Relations Committee considered strategies to bolster the profession's image. The committee, formed to combat doctors' negative image in the public eye and in the media, created a "mini-internship" program that allows members of area communities to spend two days with physicians on the job.

The society's outreach committee and board members recruited interns from five target groups: people from the business community; benefits managers; and leaders in education, government, and organized religion.

Teachers, journalists, the director of a preferred provider organization, a local government official, and a partner in an accounting firm were among those chosen to participate. Most people contacted—including Daniel Bostrum, a 24-year veteran of the St. Paul police force and chair of the St. Paul School Board—jumped at the chance to enlist. "It sounded like an opportunity a person gets only once in a lifetime," Bostrum said.

The plan was designed to educate community leaders on the practice of medicine and foster dialogue about health care issues, Welte said. "Not only did we want to try to change people's perceptions without manipulating individuals, but we also wanted to build communications bridges to members of the community with whom we don't talk very often."

According to RCMS President Charles Frye, M.D., community visibility wasn't a criterion for selecting interns. "We're not looking for the most influential people in town. We don't want the top-level executive necessarily, or even the second level. We want the people who do the work," he said.

The society doesn't expect instant results from its outreach efforts. Rather, there's an abiding purpose to community enlightenment, Frye said. "Many of these people, at one point or another, will have some influence on legislation or corporate purchasing of medical care. We would like them to do their decision making from a position of knowledge."

Frye and Welte agree that the program has exceeded all expectations. "The participants feel they've learned a lot about issues in medicine and the importance and complexity of the physician-patient relationship," Welte said. Because it went so well, the program will continue in 1989. After next year's cycle, the program will be reevaluated. Those interested in signing up for future sessions can call Welte at the Ramsey County Medical Society. Graduates of the program are also asked to recommend possible interns, she said.

Eighteen interns and more than 20 doctors participated in the program in the spring, summer, and fall of 1988, each spending four half-days at work with a different Ramsey County physician. Before taking the field, interns met host doctors and received their schedules at a pre-internship orientation. Following the internship, they regrouped to evaluate the program and talk with the doctors.

Diane Beulke, who reports on health care for *City-Business,* had a typically good encounter. She especially liked the program's realistic nature. "I actually got to see the system in action—something I just haven't had a chance to do otherwise," she said.

To write for *CityBusiness,* Beulke keeps up with current health care issues. Although she frequently interviews doctors for her stories, she hadn't any idea of a doctor's typical day. The long hours and intensity were especially news to her. "I guess I thought most doctors had a pretty cushy lifestyle. I

thought it was . . . a nine-to-five kind of thing, with maybe a day off to play golf during the week," she said.

Daniel Bostrum's job as a police officer requires exhibiting grace under pressure, so he, too, appreciated doctors' abilities to cope with intense professional demands. "There isn't a lot of time between calls or between office visits. But every time they went to the next patient, it seemed that patient was the only one they saw all day. They give [patients] their complete, undivided attention," he said of the doctors.

The St. Paul clinic of otolaryngologist C. Randall Nelms, M.D., was bustling when Bostrum visited, yet he found doctors there didn't shortchange on care. "Nobody got rushed, everybody had some quality time spent with them. Their concerns were listened to and, I think, responded to. Nobody ever told them 'Don't worry about that. It's no big deal,' " Bostrum said.

Diane Beulke also expressed surprise at the amount of time doctors spend with their patients. Especially surgeons like John Shearan, M.D. "I thought, 'Well, this guy just goes in, does his procedures, and leaves.' But he also had office hours where people could come in and ask 'Do I want this surgery or not?' " she said. Shearan, for example, talked at length with a young woman considering a gastric bypass operation to lose weight, Beulke said.

A physician's counseling role extends beyond the discussion of treatment opinions, Beulke discovered. She saw that it can move into a more personal realm when she observed Wayne Thalhuber, M.D., console a woman dying of cancer. "He spent maybe 20 minutes or half an hour with her. Not that he could really do that much for her medically—just try and help her get through it," she said.

Separating his personal life from his work can be difficult, Thalhuber told Beulke. "He said he doesn't do a good job of it. He's real involved in his patients' lives. He said doctors do tend to have a lot of turmoil in their personal lives," Beulke said.

But not all doctors are ready or willing to become so emotionally bound to their patients. Matthew Mesnik, M.D., an emergency room doctor at Midway Hospital, told Beulke he preferred an alternative practice style. "He likes being able to intervene quickly in an emergency situation and send people on their way. He didn't like that long-term closer relationship," Beulke said.

Whichever the case, interns saw that a lot of time and energy go into maintaining a good relationship with patients. They also saw that the physician-patient relationship is often adversely affected by finances. The way prepaid health providers pressure doctors hit home for Beulke when she overheard a classic battle between Thalhuber and an area HMO. "He really felt this woman needed to stay in the hospital longer, and the insurance company was saying, 'Well, we think she should go home.' Every day he had to be the in-between guy, talking with her and with the insurance company and trying to do what he thought was best for the patient," Beulke said.

"I guess I thought most doctors had a pretty cushy lifestyle. I thought it was . . . a nine-to-five kind of thing, with maybe a day off to play golf during the week."

Financial and legal problems confront doctors from many sides, as the interns observed. Intern Steve Proeschel, an assistant to St. Paul Mayor George Latimer, listened to anesthesiologists at Midway discuss the burdensome cost of malpractice insurance. Following a $4,000 lawsuit, an insurer substantially hiked one doctor's premiums. Yet the doctor had no real recourse, Proeschel said. "His rates had just skyrocketed unbelievably. He looked at self-insuring but found that was not even possible."

Doctors also told Proeschel how new technology increases consumer health premiums and treatment costs. It's not cheap to satisfy patient demand for the best care available, they explained. "They

discussed how some of the technology that was previously provided for special cases is quickly absorbed into the mainstream of medical practice. Once a machine goes on the market, it's basically required to be used in every operation setting. That's really driving the cost up," Proeschel said.

RCMS President Frye sounded a similar note for an intern observing his radiation therapy work at Midway. He told the intern that patients, often mistakenly, equate excellent care with technology. "They rather expect to see the technology or to know about it. If you don't order an MRI or a CT, many of them will ask, 'Why not?' We sometimes spend more time trying to explain to patients why they don't need things rather than why they do," Frye said.

Steve Proeschel also learned how the cost of care and the technological ability to sustain life can join to create ethical dilemmas for doctors. Especially when physicians and families must consider discontinuing life support. "It's really tough for doctors to make those decisions or to stand by and watch as somebody is kept alive in a situation where there really is no quality of life—no hope for any kind of return to a reasonable life," he said.

Proeschel's experience was just what the RCMS outreach committee intended. "We wanted people to see the different kinds of relationships doctors have today. And the technology of medicine. Then, most importantly, we hoped to give people some on-site experience in the complexities of medical practice—the ethical, legal, financial, management, and legislative issues doctors deal with today," explains committee member Carolyn Borow, M.D., who also participated in the program as a physician at St. Paul's West Side Community Health Center—or "West Side Clinic."

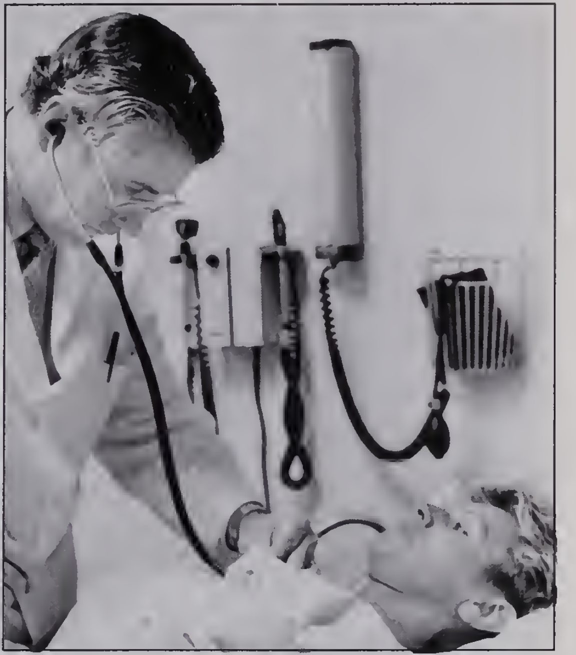
The patient mix at the West Side Clinic interested many interns, Borow said. Yet she hadn't been sure how interns would react to the clinic, owned and operated by members of the almost exclusively Southeast Asian and Spanish-speaking neighborhood. "I thought they might be critical, or judgmental, or even hostile. Yet we had people with all sorts of political backgrounds, beliefs, and all of them were 100 percent supportive. Some said 'What can I do to help your clinic? The work you do here is wonderful.' That sort of thing," she said.

Borow said she hoped interns visiting her clinic "learned that doctors are more like social workers or teachers or ministers—something more in the social service line, rather than the old-fashioned sort of unapproachable doctor."

Proeschel learned that at Borow's clinic and elsewhere. Like other interns, he was impressed by the sensitivity the West Side Clinic staff showed its Southeast Asian patients. As an assistant to Mayor Latimer, Proeschel may be able to use some of what he observed at the clinic to help integrate Southeast Asians into St. Paul's larger community, a priority for the city.

Perhaps more in the social service line, and certainly on the darker side of doctors' work, Proeschel was present while physicians at Children's Hospital of St. Paul treated abused children.

"That was so traumatic for me. Just seeing the few cases I did, and talking to the doctors about it," Proeschel said. "The doctors were very bitter about the system and the way child abusers are being dealt with in the criminal justice system. Many of these people see parents coming back to pick the kids up after they've already been either convicted or charged, and that was really, really disturbing. They said they've had three children die in the emergency room as



a result of abuse," Proeschel said.

Hearing the perspective of doctors who treat these children may help Proeschel do something about the problem; his office is working with the city to increase conviction rates for child abusers and improve caseworkers' efforts to follow up on these children.

Scenarios like this taught interns that physicians must learn to deal with the bad as well as the good. Doctors possess healing skills that at times invoke wonder; but they also have to accept their own and the system's limitations. Their work reflects an attempt to balance this dichotomy.

Police officer Bostrum experienced the dichotomy directly: He saw a young Hmong girl holding on to life in the intensive care unit of St. Paul Children's Hospital, and later attended the birth of a couple's first child at United Hospital. He said the birth was the most memorable moment of his internship (fathers couldn't be present when his own children were born).

Almost all patients, including the new parents, were happy to cooperate with the program, doctors reported. Yet host doctors were careful not to take advantage of patients, given their vulnerability to physician authority. "Most of the patients view it as kind of a teaching situation. And most of them are actually flattered to think maybe they're being used in that situation," Frye said.

In turn, Bostrum found the doctors he followed treated him, as well as their patients, with respect. "I didn't feel that I was ever a burden to any of the doctors. I felt welcome. At no time did I ever feel I was intruding on the doctors' time and space. That was the real feeling that made me comfortable," he said.

Bostrum, whose 24 years with the St. Paul police have led him to most city emergency rooms, was intrigued by a side of that critical care he'd never known. He observed smaller emergencies, not the life-threatening cases he's seen before. "I was impressed by the caring attitude that the doctors gave people," he said.

Modern practitioners, the interns discovered, want to work cooperatively with the whole patient. Yet the interns also saw, at close range, the personal and professional challenges making the task difficult. All were impressed by the dedication and commitment the profession demands and the caring attitude of physicians.

One reason reporter Diane Beulke signed up was to make some new contact with doctors she could use as future sources in stories. While her job requires her to be aggressive in asking questions, she found observation more worthwhile in this case. The program's hands-on approach also appealed to her. "It's not an artificial thing that's set up, not a seminar. Unless you were a medical student, I don't know how you'd ever have the chance to see it from that perspective," she said.

"We sometimes spend more time trying to explain to patients why they don't need things rather than why they do."

After the experience, she wrote a personal column for *CityBusiness*. The first sentence went: "I have been covering the health care business for two years now, but the forces of change that I write about didn't come alive for me until I got to spend two days shadowing doctors."

Peter Kizilos is a Minneapolis freelance writer.

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New Findings in
Obsessive-compulsive Disorder

Suck Won Kim, M.D., and Maurice W. Dysken, M.D.

During the past several years, impressive progress has been achieved in the field of obsessive-compulsive disorder (OCD). Improved diagnosis and treatment of this disorder has brought about renewed interest and optimism. Newer biological findings as well as drug treatment of obsessive-compulsive disorder are summarized here. A brief clinical description of obsessive-compulsive disorder is also included.

Obsessive-compulsive disorder is a chronic, disabling illness that usually lasts throughout a person's lifetime. Until recently, OCD was considered to be a rare condition that was refractory to known psychiatric treatments. A recent large-scale, multicenter epidemiological study, however, showed a surprisingly high lifetime prevalence rate of 2.5 percent in the general population.[1]

Obsessions are defined in DSM-III-R as persistent ideas, thoughts, impulses, or images that are experienced, at least initially, as intrusive and senseless. The person suffering from OCD attempts to ignore or suppress such thoughts or impulses or to neutralize them with some other thought or action. The person recognizes that the obsessions are the product of his or her own mind, and not imposed from without (as in the delusion of thought insertion).[2] Compulsions are defined as repetitive, purposeful, and intentional behaviors that are performed in response to an obsession, according to certain rules, or in a stereotyped fashion.[2] "The behavior is designed to neutralize or to prevent discomfort or some dreaded event or situation. However, either the activity is not connected in a realistic way with what it is designed to neutralize or prevent, or it is clearly excessive. The act is performed with a sense of subjective compulsion that is coupled with a desire to resist the compulsion (at least initially). The person recognizes that his or her behavior is excessive or unreasonable and does not derive pleasure from carrying out the activity, although it provides a release of tension."[2]

Common symptoms include recurrent obsessions with fears of contamination, fears of harming others, and persistent worries that doors are not locked or light switches are not correctly set. Frequently, rituals accompany the obsessions. Washing, checking, counting, and rearranging rituals are common. Patients try very hard to resist these symptoms, but they usually encounter only escalating anxiety rather than relief of symptoms. In many cases, the illness severely affects their functioning at home as well as at work. They clearly understand that their obsessions are irrational, but they find themselves unable to put these thoughts out of their minds.

The age of onset of the illness varies from less than 10 years of age to the late 20s. In some cases, the illness begins so suddenly and unexpectedly that patients will vividly remember even the most minute details of this first experience, including the exact time and date of the event. More commonly, however, the onset is gradual.

Over time, patients attempt to lead very ritualized lifestyles. They desperately try to conceal from other people their thoughts and behaviors, lest others might think they are strange or crazy. It is not unusual to meet an OCD patient who has been going to one doctor for many years and yet has not shared his or her obsessions. Family members or the patient's spouse may find that the patient expects them to participate in checking and/or washing rituals. For example, one patient insisted that his daughter verify his own observations that all the windows were locked. The rituals frequently take hours. Washers tend to use enormous amounts of soap and water. Some patients cannot throw anything away. They hoard empty boxes, magazines, and newspapers all over the house. The notion that compulsive people are neat and clean is correct for those who have compulsive personality disorder, but true OCD patients often show signs of functioning disturbances that affect their ability to keep their houses clean. For example, Howard Hughes in his late life showed a number of such severe obsessive-compulsive symptoms.[3] People with OCD begin and end their rituals in a certain way. If a noise or a telephone ring disturbs the rituals, they have to repeat them all over again. They spend so much time doing rituals they often don't have any time for recreation or work. It takes hours for them to prepare themselves to leave the house. Some patients might begin

continued

preparing at 3:00 a.m. to meet a 1:00 p.m. appointment. Depression and anxiety frequently accompany the illness.

Recent Findings

Although a number of theories exist, the cause or causes of the illness are not yet known. Earlier dynamic concepts have been challenged in recent years based on pharmacological and biological findings. Thoren and coworkers reported that the best treatment outcome occurred in a group of patients who showed higher pretreatment and lower posttreatment 5-hydroxyindoleacetic acid (5-HIAA) in cerebrospinal fluid.[4] Flament and his colleagues found an association between high pretreatment, lower posttreatment platelet serotonin (5-HT) levels, and favorable clinical response in clomipramine-treated children and adolescent patients.[5] Weizman and his group reported decreased platelet imipramine binding sites (linked to a serotonin port) in OCD.[6] The fact that serotonin reuptake inhibitors have therapeutic efficacy in OCD has led investigators to postulate an abnormal regulation of brain serotonergic function long before other supportive evidences emerged (Table 1).

TABLE 1

Findings suggesting a serotonin link in OCD

Serotinin uptake inhibitors	Showed enhanced therapeutic benefit
Platelet serotonin	Decreased after successful treatment
mCPP (see text)	Worsens OCD symptoms
Platelet imipramine receptors	Decreased in OCD

Serotonin-receptor-coupled phosphatydylinositolphosphate (PIP) generation and subsequent cascade reaction leading to the activation of protein kinase has recently gained significant attention, and research in this area has accelerated during the past few years.[7] This has contributed to the understanding of the mechanisms of action of lithium and may contribute to the understanding of the pathophysiology of bipolar disorder[7] as well as OCD. Major serotonin nuclei are located in the midbrain. The dorsal raphe nuclei seem to be associated with 5-HT2 receptors and are distributed widely throughout the forebrain, whereas axons from median raphe nuclei are more discreetly distributed in outer layers of parietal lobe, posterior cingulate cortex, hilus of the dentate gyrus, hippocampus, and lateral entorhinal areas. These axons are described as more coarse and predominantly mediated through 5-HT1 receptors.[8]

Recently, a serotonin receptor agonist, meta-chloro-phenylpiperazine (mCPP, also a trazodone metabolite) has been shown to aggravate OCD symptoms shortly after oral administration.[9,10] Findings from Charney and his colleagues, however, were at variance when 0.1 mg/kg mCPP was administered intravenously.[11] Although 5-HT2 receptors appear to be homogenous, 5-HT1 receptors are not and have been divided into 5-HT1a, 5-HT1b, and 5-HT1c subtypes. Pharmacological and electrophysiological application seem to bring about inconsistent receptor responses in the case of serotonin receptors, and comprehensive understanding will have to await further investigations.

The dexamethasone suppression test (DST),[12] electroencephalography (EEG),[13] sleep electroencephalography (EEG),[14] power spectral EEG,[15] and neuropsychological testing[15] have also been studied by various investigators. The findings from these studies show decreased total sleep time, decreased stage-4 sleep, decreased rapid-eye-movement (REM) efficiency, shortened REM latency, and abnormal dexamethasone suppression test in a subgroup of OCD patients. These results are similar to the ones found among depressed patients. Because many OCD patients have secondary depression, further studies are needed to interpret these results. Insel and his group not only have reported the aforementioned DST and EEG abnormalities, but also published cerebrospinal fluid (CSF) amine metabolite levels as well as platelet imipramine binding in an attempt to elucidate the pathophysiology of OCD.[16] Baxter and his colleagues reported the first positron emission tomography (PET) findings in OCD in which increased metabolic activities in orbital gyri were shown especially on the left.[17] His group has since replicated the same findings in a less-depressed group of OCD patients.[18] Nordahl (personal communication, Feb. 18, 1988) and Swedo at the National Institutes of Health have arrived at the same conclusions from their independent studies.

Treatment

The behavioral treatment of OCD has been shown to be particularly effective in patients with compulsive behaviors. One technique, known as "exposure in vivo," involves, among other things, touching unclean objects with the hands. Response prevention refers to the injunction of not cleaning one's hands, even though one has a strong urge to do so. These treatments were explored as early as the middle 1960s,[19] but meaningful clinical application of these methods did not begin until recently.

The efficacy of drug treatment of OCD was reported more than 20 years ago,[20-22] but well-designed double-blind, controlled studies did not emerge until the early 1980s (Table 2). During the past several years, seven double-blind studies[23-29, 30] established the superiority of clomipramine, which may become available this year, over the available antidepressants in the treatment of OCD. A national multicenter, double-blind, placebo-controlled study of clomipramine has just ended and is in the extension phase. Clomipramine is a potent serotonin reuptake blocker, and its metabolite, desmethylclomipramine, blocks serotonin as well as norepinephrine reuptake.[31]

Most recently, investigators reported that other serotonergic drugs such as fluoxetine (Prozac)

TABLE 2

Drugs trials in OCD

clomipramine	7 DB studies since 1980 definitely effective
citalopram	withheld from clinical studies
fluoxetine	1 SB, 1 open study possibly effective
fluvoxamine	1 SB, 1 DB study encouraging results
sertraline	under investigation
zimelidine	withdrawn from the market

SB = Single blind, DB = Double blind

TABLE 3

Serotonin reuptake inhibitors

- alaproclate
- clomipramine
- citalopram
- femoxetine
- fluoxetine
- fluvoxamine
- gepirone
- indalpine
- paroxetine
- sertraline
- zimelidine

and fluvoxamine were efficacious in OCD. In a double-blind, placebo-controlled study, Perse and Greist reported that fluvoxamine, which may be approved for use in two or three years, had a favorable side-effect profile and an excellent therapeutic outcome.[32] Price and Goodman conducted a single-blind fluvoxamine study that showed marked reduction in symptoms based on the Yale-Brown Obsessive Compulsive Scale evaluation.[33] This newly developed instrument appears to be sensitive to clinical change with good reliability and validity.[34,35] A national multicenter fluvoxamine study has begun recently. Zimelidine, also a serotonergic drug, has recently been withdrawn from the market because of an association with the development of Guillain-Barre syndrome. Citalopram has also been withdrawn from clinical trials. Sertraline is being tested at this time. There is now a group of newer serotonin-enhancing agents (Table 3) that is being investigated for clinical use. Early study results indicate that these agents may show benefit for depression, anxiety, and obsessive-compulsive disorder. Some of these agents seem to induce weight loss and lessen the desire to drink alcohol.[36]

The FDA has recently granted an Investigational New Drug (IND) status for clomipramine, and the manufacturer (Ciba-Geigy) has begun to distribute the drug to physicians who request it. Fluvoxamine (Kali-Duphar) can also be obtained through a humanitarian protocol. Fluoxetine (Prozac) has recently been approved by the FDA for use in depression and may be used in OCD. Patients may also respond to behavioral approaches and should be evaluated by a psychiatrist for referral to an expert in this field. The primary physician is often in the best position to recognize OCD psychopathology, but active questioning about checking and washing behavior and obsessional thinking may be necessary in OCD patients who commonly conceal their symptoms.

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References

1. Robins LN, Helzer JE, Weissman MM, et al.: Lifetime prevalence of specific psychiatric disorders in three sites. Arch Gen Psychiatry 41:949-958, 1984.
2. American Psychiatric Association, Committee on Nomenclature and Statistics: Diagnostic and Statistical Manual of Mental Disorders (Third Edition-Revised). Washington, DC, American Psychiatric Association, 1987.
3. James Phelan: Howard Hughes: The Hidden Years. Random House, New York, 1976.
4. Thoren P, Asberg M, Bertilsson L, et al.: Clomipramine treatment of obsessive compulsive disorder. II. Biochemical aspects. Arch Gen Psychiatry 37:1289-1294, 1980.
5. Flament MF, Rapoport JL, Murphy DL, et al.: Biochemical changes during clomipramine treatment of childhood obsessive compulsive disorder. Arch Gen Psychiatry 44:219-225, 1987.
6. Weizman A, Carmi M, Hermesh H, et al.: High-affinity imipramine binding and serotonin uptake in platelets of eight adolescent and ten adult obsessive-compulsive patients. Am J Psychiatry 143:335-339, 1986.
7. Lenox RH: Role of receptor coupling to phosphoinositide metabolism in the therapeutic action of lithium. In Ehrlich YH, Lenox RH, Korneck E, Berry WO (ed): Molecular mechanisms of neuronal responsiveness. Advances in experimental medicine and biology Vol 221. Plenum Press, New York, 1987.
8. Molliver ME: Serotonergic neuronal systems: What their anatomic organization tells us about function. J Clin Psychopharmacol 7:3s-23s, 1987.
9. Zohar J, Mueller EA, Insel TR, et al.: Serotonergic responsitivity in obsessive-compulsive disorder. Comparison of patients and controls. Arch Gen Psychiatry 44:946-951, 1987.
10. Hollander E, Leibowitz M: Clonidine and mCPP challenges in OCD. Obsessions & Rituals: New findings in research & treatment. Brown University, Oct 8, 1987.
11. Charney DS, Goodman WK, Price LH, et al.: Serotonin function in obsessive compulsive disorder: A comparison of the effects of tryptophan and m-chlorophenylpiperazine in patients and healthy subjects. Arch Gen Psychiatry 45:177-185, 1988.
12. Insel TR, Kalin NH, Guttmacher LB, et al.: The dexamethasone suppression test in patients with primary obsessive-compulsive disorder. Psychiatry Research 6:153-160, 1982.
13. Jenike MA, Brotman AW: The EEG in obsessive-compulsive disorder. J Clin Psychiatry 45:122-124, 1984.
14. Insel TR, Gillin JC, Moore A, et al.: The sleep of patients with obsessive-compulsive disorder. Arch Gen Psychiatry 39:1372-1377, 1982.
15. Flor-Henry P, Yeudall LT, Koles ZJ, et al.: Neuropsychological and power spectral EEG investigations of the obsessive-compulsive syndrome. Biological Psychiatry 14:119-130, 1979.
16. Insel TR, Mueller EA, Alterman I, et al.: Obsessive compulsive disorder and serotonin: Is there a connection? Biol Psychiatry 20:1174-1188, 1985.
17. Baxter LR, Jr, Phelps ME, Mazziotta JC, et al.: Local cerebral glucose metabolic rates in obsessive-compulsive disorder. A comparison with rates in unipolar depression and in normal controls. Arch Gen Psychiatry 44:211-218, 1987.
18. Baxter LR, Jr: PET scanning. Obsessions & Rituals: New findings in research and treatment. Brown University, Oct 8, 1987.
19. Meyer V: Modification of expectations in cases with obsessional rituals. Behav Res & Therapy 4:273-280, 1966.
20. Lopes-Ibor JJ: Ensayo clinico de la monochlorimipramina. Read at the Fourth World Congress of Psychiatry. Madrid, 1966.
21. Fernandez CE, Lopez-Ibor JJ: Monochlorimipramine in the treatment of psychiatric patients resistent to other therapies. Act luso Esp Neurol 26:119-147, 1967.
22. Guyotat J, Gavre-Tissot M, Marie-Gardine M: A clinical trial with a new antidepressant G34586. Presented at the CR Congress of Psychiatry and Neurology. Dijon, 1967. Masson, Paris (pp 717-722), 1968.

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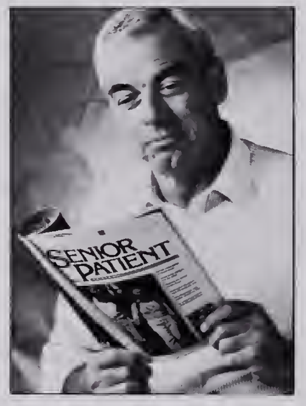

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We earn our livelihood by practicing our profession. Traditionally, that has occurred through a fee-for-service mechanism. Those who sought our expertise paid us for our service. Those who had not the means to pay for medical care either had none or were treated in charity/teaching wards or clinics.

For centuries the practitioners of our profession were primarily cognitive. They practiced the art of medicine. Their knowledge was limited, their conclusions were often in error, and their therapy was often either ineffective or wrong. Archaic practices such as bloodletting, leech application, and purging bear witness to those facts.

During the past three centuries, our application of the scientific method to problems of disease and injury brought to our practice astounding discoveries and burgeoning knowledge that greatly improved our ability to care for our patients. The art of medicine was enhanced by the science.

Our early colleagues were limited to medical history taking and the observing of physical findings. With such limited knowledge, a diagnosis was postulated, and a treatment was prescribed.

With the advent of the sciences such as chemistry, bacteriology, and radiology our diagnostic accuracy improved. The discoveries of pharmacology brought vast improvement to our therapeutics. The discovery and development of anesthesia made surgical advancement possible.

Although these medical miracles added greatly to the efficacy of medical practice, they also added to its cost. And still the payment mechanisms remained the same. Fee-for-service was paid by those with sufficient means. Reduced fees were sometimes charged at the physician's discretion. Free care was provided for the indigent, often in medical teaching institutions or in clinics and hospitals supported by government at various levels. One other unique system—military medicine—has provided care at no cost to members of the armed forces by physicians employed by the government.

As the quality and effectiveness of medical care improved, more and more people wanted to avail themselves of its benefits. However, the cost of our expertise and technology was often beyond the means of the average citizen. Enter the concept of hospital insurance, later expanded to health insurance that covered some services delivered in or out of the hospital setting. In the beginning, the insurance concept was simple. Many individuals contributed to a pooled fund from which payment was made for services needed by relatively few of the members. This concept presupposes that all members will neither need nor receive all the services covered by the insurance. Hence, all members should realize a cost economy and still be assured that their costly care will be provided when necessary.

That concept grew in popularity. Many individuals purchased such insurance for significantly less than the cost of a major illness or injury. Labor unions and other employee groups bargained for and received such coverage.

The social conscience of our country suggested that access to basic health care is the right of all citizens, regardless of their ability to pay for it. As a result of that idea, government entered the insurance business with Medicare and Medicaid.

Throughout this evolution, we physicians continued to care for our patients, providing diagnosis and treatment, and increasingly, prevention and education. We were pleased that, through health insurance, payment for increasingly costly medical care was available for more and more of our patients without untenable individual economic stress. It is true that many physicians deplored the coming of Medicare and Medicaid as a first giant step toward socialized medicine, a system perceived by some to be one that would sound the death knell for the unfettered practice of medicine. Nonetheless, we quickly availed ourselves of those payment mechanisms for the care we provided to patients covered by those programs.

Although our health care delivery process remained essentially the same, there was a major change in the payment process. In large measure, no longer did our patients themselves pay our fee for service. The bill for our services often was directed to *third-party payers,* and the patient was absolved from personal cost considerations. That fact is at the root of many of the economic problems we physicians face today.

As our medical care becomes more efficacious, sophisticated, comprehensive, *and* costly, our patients' need for it and their demand for it increase. As the cost of and demand for our services increase, the payment mechanisms become strained. The funding pool is not adequate to pay for all the services that might be provided. To address this dilemma, we have three types of options:

► First, we might choose to continue to provide all of the services that are or may be of benefit to our patients, regardless of cost. We must then recognize that some or all of the fee for our service will not be paid.

► A second option is to consider the amount of service that we provide and consider reappraising our fee structure. This would involve careful scrutiny of all medical care to assure that everything we deliver is in some way beneficial to the patient. This would entail more discrimination in the use of costly technology in both diagnosis and treatment. It would also require a reappraisal of the concept of defensive medicine.

► The third option, which is largely not under our control, is to enlarge the financial funding pool from which payment is made. This would require that the government either increase taxation or restructure priorities. It would also require increasing premiums for insurance coverage.

These three basic mechanisms are being approached in many ways today. Alternatives to fee-for-service coverage are many and varied. They seek to control costs by utilizing preservice authorization, limited benefit packaging, patient copayments, deductibles, preferred providers, peer review, discounted fee schedules, etc., etc. And still the problems of cost persist.

As physicians we must educate ourselves and our patients to all of the realities described here. We must all try to understand the complexities that the delivery and receipt of modern medical care entail. We must make certain that the care we provide is worth the cost.

In the last analysis, physicians are free to provide all the care of which they are capable. Third parties cannot limit the care we deliver. They can, however, limit or deny their payment for it. Patients may receive all the available care that they are willing and able to pay for. Somewhere between those two poles lies the ideal health care delivery system. We must find it! ■

Health One Continuing Medical Education

February 6	**"Liposuction"** presentation by George Peltier, M.D. – 6:30 p.m. Health Central of Owatonna
February 8	**"Colon Polyps"** by Jens Strand, M.D. – 1:00 p.m. Long Prairie Memorial Hospital and Home
February 15	**"Physician CPR Recertification"** 6:00-8:00 p.m. Metropolitan Mount Sinai Medical Center
February 16	**"Congestive Heart Failure"** by David Berman, M.D. – 12:00 noon. Sioux Valley Medical Center, New Ulm, Minnesota
April 26	**"Physician CPR Recertification"** 6:00-8:00 p.m. Metropolitan Mount Sinai Medical Center
May 1	**"The Relative Value Scale"** by Alvin L. Schultz, M.D. – 6:30 p.m. Health Central of Owatonna
May 23	**"Vascular Headache"** by T. Capistrant, M.D. – 7:30 a.m. River Falls Area Hospital/Kinnic Long Term Care Unit
June 16	**Health One/HFA Primary Care Symposium** Pillsbury Auditorium

For further information, contact Beth Murphy, CME Coordinator, Medical Affairs Division, Health One. (612) 574-7716.

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Contract Law for Physicians

The Basics

Robert Eelkema, J.D.

As part of the Minnesota Medical Association's ongoing contract review process, this article provides information to help educate physicians about the major managed care contracts being offered to them. The information provided is not intended to, nor should it be a substitute for legal advice pertaining to an individual's practice and specific contracts with third parties. The MMA will not be making recommendations regarding the merits of any particular contract. A decision to enter into a contract rests with the physician and his or her clinic in consultation with private legal counsel.

This article 1) outlines the types of managed care entities operating in Minnesota, 2) describes the basic elements of contract law, and 3) reviews some contract terms that are required to appear in HMO contracts by Minnesota law or are commonly found in managed care contracts.

The Structures of Managed Health Care

Health Maintenance Organizations: Minnesota's HMO law requires that HMOs provide enrollees with "comprehensive health maintenance services." As defined by law, this means a set of services that enrollees might reasonably require to maintain good health. At a minimum, these must include emergency care, inpatient hospital and physician care, outpatient health services, and preventive health services.

The three common structures for HMOs are the group or staff model (e.g., Group Health); the independent practitioner's association, or IPA, model (e.g., Physicians Health Plan); and the group model (e.g., Share Health Plan).

The HMO Law, Chapter 62D of Minnesota Statutes, is administered by the Minnesota Department of Health (MDH). Further information about specific HMOs may be obtained by contacting the Alternative Delivery Systems Office at the MDH, (612) 623-5454.

Health Service Plan Corporations: Nonprofit health service plan corporations, such as Delta Dental and Blue Cross/Blue Shield of Minnesota, are governed under the provisions of Minnesota Statutes Chapter 62C. The law's stated purpose is to "promote a wider, more economical and timely availability of hospital, medical-surgical, dental, and other health services for the people of Minnesota, through nonprofit prepaid health service plans, and thereby advance public health and the art and science of medical and health care within the state."

Under the law, service plan corporations develop "service plans," which are programs for the delivery of health services to subscribers. The health services are delivered by providers who have entered into a "service agreement" with the service plan corporation. The law defines "service agreement" as an agreement or contract "under which the provider agrees that when health services are provided to a subscriber the provider shall not make a direct charge against the subscriber . . . but shall look to the service plan corporation for the payment for covered services."

Health service plan corporations in Minnesota are regulated by the Department of Commerce. Further questions regarding HSPCs should be directed to the Department of Commerce, (612) 296-3588.

Preferred Provider Organizations: A preferred provider organization, or PPO, generally refers to an organization of physicians and/or hospitals that contracts directly with employers or insurers to provide medical services to a set group of subscribers. The subscribers might be employees of a company or group of companies, or may be a group of people that has purchased coverage directly from an insurer.

The basic outlines of a PPO agreement call for the PPO to provide services to a defined group of patients at discounted rates in return for an enlarged or assured patient base and timely reimbursement. PPOs in Minnesota must be registered with the Department of Commerce, (612) 296-3588.

PPOs are allowed to operate in Minnesota by virtue of an exclusion from the laws regulating the trade practices of insurance companies. This exclusion states that it is not a discriminatory practice for group health insurance policies "to pay differing amounts of reimbursement to insureds who elect to receive health care goods or services from providers designated by the insurer. . . ."

The insurer must report to the commissioner of commerce the names of the preferred providers and the terms of any agreements.

Basics of Contract Law

The law governing the execution and interpretation of contracts comes from many sources. Among these are the common law of England, case law from American courts, and state and federal statutes. The study and practice of contract law is a complex and specialized field. Rather than attempt to explore the entire field, this article focuses on a few basic elements of contract law pertinent to managed care contracts—elements that every physician should know.

Contract: A contract is simply an agreement between two or more persons that creates an obligation to do or not to do a particular thing. The term "contract" also refers to the writing that contains such an agreement and serves as proof of its terms. These basic concepts hold true for managed care contracts just as for sales contracts, purchase agreements, and partnership documents.

Sufficiency: One standard applied to test a contract might be whether the contract sufficiently reflects the understanding of the parties to the agreement. Elements of this test include some of the major items included in this article in addition to the question: Is it apparent that the parties came to a mutual understanding, and is the contract specific enough to reflect the responsibilities undertaken?

In disputes over contract terms, courts will generally look at the relative sophistication of the parties to a contract. As trained professionals with many years of education, physicians are presumed and expected to understand the impact of signing a contract. A court will not allow a physician to claim ignorance with regard to a contract term that is reasonably clear.

Parties: The legal relationship between the parties should be defined, and *all parties involved in the contract should be clearly identified.* Individuals should use their proper legal name. For legal entities other than an individual, the proper legal name of the entity should be indicated, as well as the type of entity it is and the proper legal name of the individual who will be signing on behalf of the entity and binding it to the contract.

If a contract is signed on behalf of a group of physicians or a clinic, the legal status of the group or clinic should be noted as well as the proper legal name of the person signing and the capacity in which that person is signing.

Often a contract may contain a term that, in effect, allows the managed care entity to bring other parties into the contract. Such a contract term might provide that the managed care entity is signing on behalf of itself and other named parties or, occasionally, purchasers or assigns of the entity. The presence of such a clause or term should be carefully considered, as it may change the fundamental nature of a contract. Signing will mean entering into a contractual relationship with not only the signing entity, but potentially many others as well. (This type of term should be distinguished from the power of attorney, discussed later.)

Terms: The terms of a contract are simply the provisions detailing how the contracting parties will relate to one another. Terms of the contract should be specific enough to be readily understood. Generally, a term that is so vague as to evade understanding will not be enforceable.

At the very minimum, a contract with a managed care entity should include the length of time the obligation will run, the payment mechanism and amounts, events that may trigger the termination of the contract, and other obligations being agreed to by each of the parties. Following are some key terms that may appear in managed care contracts.

Length of the contract

All contracts should include a provision describing the length of the agreement, called the term of the contract. A contract for a fixed term automatically expires after a stated period, which may range from one year to many years. Evergreen contracts, which are renewed automatically for successive periods unless terminated by prior notice, are becoming more common.

All contracts should also specify the circumstances under which a party may terminate the agreement. Many contracts contain an optional "termination clause." This contract term grants either party the right to terminate the contract without cause after giving notice to the other party within a stated number of days. Minnesota Law requires a 120-day notice for termination of an HMO contract without cause. (See box, page 99.)

In contracts that may be terminated without cause, a party may terminate the contract at any time for any reason or for no reason at all, as long as the required notice is given.

Some contracts may allow "without-cause" termination only within a specified period. An example would be an automatically renewing contract with an option to terminate without cause by giving notice 120 days *before the anniversary date.*

If a termination "without-cause" term is included in a contract with a fixed term (e.g., five years) or an evergreen contract (e.g., one year with automatic renewal), the physician should recognize that the real length of the contract probably is reflected in the optional termination clause.

For contracts lacking a without-cause termination provision, the contract may be terminated only if a party fails to meet the terms and conditions of the contract. In this case, the contract should also specify events that constitute breach of the contract and the actions required to properly terminate the contract in the event of a breach. When listed, such provisions commonly include loss of the physician's medical license or loss of staff privileges. Some contracts treat the insolvency of either party as a breach; under other contracts, insolvency automatically terminates the agreement.

In addition, the contract should state the effect of termination on the legal relationship of the parties. Covenants, or obligations on the part of either party, that will continue beyond the term of the contract should be specified. For example, some contracts may delay the termination date for a period of time at the discretion of the managed care entity. Other portions of the agreement may require that the physician continue to provide care to a patient who was hospitalized before the contract termination date.

The financial implications of termination should also be specified. In the context of HMO contracts, many states prohibit physicians from collecting fees for services directly from the patient if the HMO terminates the contract due to insolvency. Minnesota law requires specific language in provider contracts that addresses this. (See box, adjacent.) It is critically important that physicians recognize obligations that continue beyond termination of the contract and plan their negotiating and operation strategies appropriately.

Minnesota Law—HMO Provider Contract Provisions

The 1988 Minnesota Legislature enacted several bills dealing with health maintenance organizations. One of these bills requires inclusion of specific terms in provider contracts. These terms are primarily designed to benefit HMO enrollees. Physicians should note that the provision allowing provider reporting of late payments is not a required contract term. It is, however, one that may be valuable to physicians in their dealings with HMOs.

62D.123 Subdivision 1. Provider agreement. Except for an employment agreement between a provider and health maintenance organization, an agreement to provide health care services between a provider and a health maintenance organization entered into or renewed after April 25, 1988, must contain the following provision:

Provider agrees not to bill, charge, collect a deposit from, seek remuneration from, or have any recourse against an enrollee or persons acting on their behalf for services provided under this agreement. This provision applies to but is not limited to the following events: (1) Nonpayment by the health maintenance organization or (2) breach of this agreement. This provision does not prohibit the provider from collecting copayments or fees for uncovered services.

This provision survives the termination of this agreement for authorized services provided before this agreement terminates, regardless of the reason for termination. This provision is for the benefit of the health maintenance organization enrollees. This provision does not apply to services provided after this agreement terminates.

This provision supersedes any contrary oral or written agreement existing now or entered into in the future between the provider and the enrollee or persons acting on their behalf regarding liability for payment for services provided under this agreement.

Subd. 2. Cooperation required. An agreement to provide health care services between a provider and a health maintenance organization must require the provider to cooperate with and participate in the health maintenance organization's quality assurance program, dispute resolution procedure, and utilization review program.

Subd. 3. Notice of Termination. An agreement to provide health care services between a provider and a health maintenance organization must require that if the provider terminates the agreement, without cause, the provider shall give the organization 120 days' advance notice of termination.

Subd. 4. Late payments. If a health maintenance organization's payments to a provider are delayed beyond the payment date in the contract, the provider may notify the commissioner, who shall consider that information in assessing the financial solvency of the health maintenance organization.

Change of law & procedures

Many contracts include a provision through which the physician agrees that any changes to federal or state law affecting the contract or responsibilities under the contract become part of the contract when the law goes into effect. Inclusion of this provision would probably eliminate any argument a physician might have that a change in the law impaired the contract.

Similarly, in view of the rapidly changing laws, regulations, and economics of health care, some contracts have included a clause providing for renegotiation or termination on short notice, if such changes produce any "material" (i.e., substantive) change in the legal relationship between the parties.

Indemnity clauses

Contracts between providers and managed care entities often include what may be described as a hold harmless clause, an indemnity clause, or a mutual indemnity clause. Such clauses are an attempt to insulate the managed care entity from liability for alleged malpractice. The trend, however, is for medical malpractice claims to allege that the managed care entity is, at least in part, responsible for the medical injury. (Indemnity clauses should not be confused with the hold harmless or nonrecourse clause required by state law in all HMO provider contracts. This required clause refers to the inability of the provider to collect from the enrollee for services rendered prior to the insolvency of an HMO. See box, page 99.)

Some entities have dropped the requirement of an indemnity clause, but others may still demand it of contracting physicians.

Physicians should be aware that their insurance carriers, in all likelihood, will not cover this additional, contractually assumed liability without a specific review of the contract by the insurance carrier and payment of an additional premium.

The indemnity provision usually reads something to the effect that "contracting physician agrees to *hold harmless and indemnify* the Plan for any and all claims, demands, and expenses of all kinds that may result from or arise out of any act or omission occurring from the provision of services under this Agreement."

Another example is a completely different phrase that could have the same effect: "Physician acknowledges that he/she has an independent responsibility to provide medical care to Covered Persons and that any action by (the other party) in no way absolves Physician of the responsibility to provide appropriate medical care to Covered Persons."

Indemnity clauses can be troublesome, because they may serve to shift all contractual liability to the physician. For example, an indemnity clause may result in physician liability if the physician does not contest a utilization review decision he or she thinks is not in the patient's best interest.

Physicians are advised to refer contract provisions that discuss liability or make reference to the physician's independent responsibility to their professional liability insurers for *their* interpretation of the term in question. Any small cost incurred for such a review could be money well spent if it serves to avoid potentially costly liability. Any possible effect on liability coverage should be discovered *before* signing a contract.

Incorporation by reference

Physicians, and persons reviewing contracts on behalf of physicians, should note any reference to exhibits or documents attached as appendices or documents that are *"incorporated herein and made a part hereof by reference."* The physician should not sign the contract unless such documents are attached or the physician has thoroughly reviewed them and understands their implications.

For example, if the physician is required to provide the services referenced in a standard subscriber contract, that subscriber contract should be attached so that the physician's obligations are clear. Similarly, any documents incorporated by reference should, at the very least, be made available to the physician for review prior to signing the contract.

An emerging trend in managed care contracts is to refer to documents that "may be amended from time to time." Most commonly, this phrase would refer to preadmission certification or other prior authorization protocols. The inclusion of such a phrase, allowing unilateral amendment, modification, or alteration, could significantly lessen the physician's certainty about his or her responsibilities under the contract.

One way to reduce this uncertainty is to include a clause allowing the physician a period of time to review amendments to documents and to negotiate changes to the contract or trigger cancelation.

Power of Attorney

A power of attorney is a document that authorizes a person or entity to act as the legal agent for another. A power of attorney, which may or may not be part of a contract, could be included as a clause empowering the managed care entity to bind the physician to other entities or persons, or to other contractual terms.

In some contracts, the power of attorney may be limited. It may allow the managed care entity to bind the physician only to new contracts based on the same set of responsibilities as those laid out in the initial contract or in a model agreement. Other contracts may have a very broad power of attorney clause. So broad that the physician, without any notice, might be bound to substantially different fee schedules, preadmission requirements, or administrative obligations. In some cases, this power is not explicit; rather, the contract could be enforced as binding the physician to *any other agreement the managed care entity signs.*

Some contracts may include a notice and approval clause allowing the physician an opportunity to review prospective agreements before they become a part of the physician's obligations under the contract.

All contracts should be carefully reviewed to ascertain whether a power of attorney is being granted or is implied. When power of attorney is present in a contract, the physician should look for provisions describing the limits of the power and the physician's opportunity to review and approve new contracts.

Availability of Physician Services

The contract should specify when the physician must be available to provide professional services. Managed care contracts may specify that the physician or clinic is to maintain certain office hours as well as provide for after-hours coverage. The contract may require that a physician be available personally by telephone after office hours or that the physician assure that another participating physician is available.

Referrals

The contract may also address referral services. This would most likely be made a part of the contract through an explicit statement, although it could be an implicit requirement through some of the plan protocols. Some of the more common provisions limit referrals exclusively to other plan providers and require prior approval by the plan for referrals outside the network participants.

Entirety

A basic tenet of contract law holds that when there is a written agreement intended as the complete understanding of the parties, any understanding or commitment that precedes the signing of the contract—and is not included in the contract—will not be enforceable. Some contracts state this explicitly and require that any amendment be made in writing and signed by the affected parties.

Risk Sharing

Assumption of risk and risk sharing are concepts woven into many managed care physician agreements. Rarely, however, is risk sharing set out as an explicit term, and it is not further addressed in this article.

Before You Sign

Today's changing health care system requires physicians to pay more attention to the business side of their practices. Physicians must appreciate and understand the implications of managed care contracts.

Before entering into a contract with a health plan or managed health care entity, physicians should discuss and carefully examine the contents of the contract. The following list summarizes some of the steps to follow and questions to ask upon receipt of a contract.

► READ the contract carefully. Make notes of all questions that come to mind. If a provision is not clear or you cannot understand the operation or implication of a provision, seek competent advice.

► A contract creates a legal obligation on the part of at least two parties. All parties should thoroughly assess their ability to undertake the obligations. For physicians, this means assessing the mission and goals of their practices. In making this assessment, physicians should not overlook obligations under current contracts.

► Treat the initial contract offering as an opportunity to negotiate the specifics of a final agreement. There will most likely be some terms that the health plan expects to vary from contract to contract. Negotiation is not limited to those terms. Physicians should assert their rights to request amendment, modification, or deletion of contract language. All terms, except those specifically mandated by state law, are negotiable, and HMOs have amended "form" contracts for individual providers or groups.

► In all contracting it should be remembered that the physician's primary responsibility is to the patient. Opinion 8.06 of the American Medical Association Council on Ethical and Judicial Affairs states "Physicians may work directly for plans or may be employed by the medical group or hospital that has contracted with the plan to provide services. The AMA recognizes that under proper legal authority such plans may be established and that a physician may be employed by, or otherwise serve, a medical care plan. In the operation of such plans, physicians should not be subjected to lay interference in professional medical matters, and their primary responsibility should be to the patients they serve."

Questions to Ask

► What is the legal organization of the entity? What state agency regulates the entity? What information does that state agency have regarding the entity?

► Is there a clear identification of all parties involved in the contract?

► Does the contract include a specific description of the intended legal relationship between the parties?

► Are there specific descriptions of the physician's responsibilities in providing medical services to patients? Is the physician or clinic expected to undertake administrative duties?

► What obligation is undertaken by the physician or clinic to provide data to the entity? Is it reasonable?

► Is a grievance procedure or complaint-resolution process set out? Has the system successfully handled complaints in the past?

► Does the contract specify when the physician must be available to provide medical services?

► How are fee or capitation amounts determined?

► Do the explanations of the process used in the quality assurance and utilization review programs adequately describe the extent of physician involvement and commitment?

► Does the contract specify criteria used to evaluate physician utilization? Does it specify criteria used to determine return of hold-back amounts or other incentive bonuses?

► Is there a provision describing the duration of the agreement (i.e., the term of the contract)?

► Is there a listing of the specific events that constitute breach of the contract and the actions required to properly terminate the contract in the event of a breach?

► Does the contract state the effect of termination on the legal relationship of the parties, of any covenants that will continue beyond the term of the contract, and of the financial implications of termination?

Conclusion

This article has covered only the very basics of contract law and examples of provisions currently showing up in managed care contracts. The review of specific contracts and the implications of those contracts for a particular physician or clinic involves a thorough review of all the aspects of a clinical practice and the stability and strength of the health care entity. Detailed review of this type cannot be provided through a magazine article. It is best to seek competent legal advice to help in the process of deciding whether to enter into a managed care contractual arrangement.

Robert Eelkema is legal counsel for the Minnesota Medical Association.

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Investing to Maximize After-tax Dollars

Arthur J. Sauter, C.P.A., and Timothy P. Muehler, J.D.

After using the various options available to minimize their income tax, physicians must look for ways to invest their money that will reap the most after-tax dollars. Investing in tax shelters is one way of getting a higher return on a physician's investment.

The use of tax shelters to maximize investment potential has been a common practice for many years. A tax shelter usually refers to investments that in their early years generate paper losses that can be used to offset taxable income. Any type of investment, however, can be considered a tax shelter if it results in the deferral of tax on the investment return.

Since the Tax Reform Act of 1986, many of the new tax shelters are providing tax-free cash distributions. An example of this is a limited partnership set up to purchase an apartment building for cash. The net income will be paid out to the limited partners, but there will be no taxable income due to the depreciation on the building.

A physician should not invest in tax shelters unless he or she is willing and able to become completely familiar with the investment. This is especially important with the advent of the new passive-loss rules and the concept of "material participation" in such investments. A tax shelter often yields little or no actual return on the initial investment. If a tax shelter completely lacks economic reality (meaning the investment has no valid economic or financial purpose), the IRS will disallow all deductions related to that investment.

The 1986 Tax Reform Act had a major impact on the value and desirability of using tax shelters. The reduction of the top individual rate from 50 percent to 28 or 33 percent greatly reduced the overall tax savings from such investments. In addition, many losses generated by the shelter will be restricted to offsetting passive income, as narrowly defined. Although this introduction to tax shelters seems to paint a fairly negative picture, there are still some opportunities for tax-shelter investing.

Passive-loss Rules

The passive-loss rules divide income into three categories: 1) active income, 2) passive-activity income, and 3) portfolio income. Active income includes income such as salaries or trade or business income from a business in which the taxpayer materially participates. Passive-activity income includes income from a trade or business that the taxpayer does not materially participate in. Portfolio income includes interest, dividends, royalties, and capital gain income from property not used in the operation of a trade or business. Each of these income classifications is treated differently for taxation purposes. As a general rule, deductions for losses from passive activities are limited to the income derived from passive activities. A look at some specific investments will help clarify these sometimes confusing passive/active distinctions.

Limited Partnerships

An interest in a limited partnership is held on its face to be passive. Losses passed through to a limited partner cannot be used to offset active income. Such incomes must be used to offset income from other passive activities. In contrast, a share of partnership income relating to the performance of personal services is not considered passive, even if the taxpayer is a limited partner. A working interest in oil and gas property is not considered a passive activity, even if the owner of the interest does not materially participate.

Rental Activity

Renting property is considered a passive activity, whether the taxpayer materially participates or not. There is a $25,000 exception for the deduction of losses from rental real estate activities in which the taxpayer "actively" participates. "Active" participation is less restrictive than "material" participation.

The $25,000 worth of losses relating to rental activity is considered nonpassive, so that the taxpayer can use these losses to offset active and profitable income. The $25,000 exception provision may not help some doctors, because it is phased out for taxpayers with adjusted gross income of $100,000 to $150,000.

Passive losses that are suspended due to the new rules can be carried over indefinitely and applied against income from passive activities of subsequent years.

An important relief provision allows the deduction of suspended losses when a taxpayer disposes entirely of the passive-activity investment. It is at this time that the true economics of an investment can finally be determined.

It is clear that there are severe limitations relating to passive-activity tax shelters. Some areas in particular should be of concern to practicing physicians.

In many cases, a physician individually owns the building in which he or she works and leases the building back to his or her corporation. This arrangement can cause exposure to the new passive-loss rules. Fortunately, the physician can avoid the problem by turning this "loss activity" into a gain activity by increasing the rent in reasonable amounts. As with other actions, the physician must be careful to take into consideration how his or her tax-reduction actions will affect his or her overall financial situation.

The passive-loss rules are effective for taxable years beginning on or after January 1, 1987. Any interests that the taxpayer invested in prior to that time are subject to a five-year phase-in period. The passive-loss rules do not affect carryovers of losses and credits from years prior to 1987. Therefore, these net operating losses carried forward can be applied against either passive or nonpassive income. The phase-in provisions state that 60 percent of the passive losses and credits existing from assets invested in before 1987 are subject to the passive-income rules of 1988. The phase-in is 80 percent for 1989, 90 percent in 1990, and starting in 1991, 100 percent of passive losses and credits from interests invested in before 1987 are subject to the rules. Any loss allowed under these phase-in rules will be added back for alternative minimum tax purposes.

Alternative Minimum Tax

The 1986 Act amended the alternative minimum tax (AMT) rules to ensure that every taxpayer with economic income pays a "reasonable" amount of tax. The computation of the AMT is based on regular taxable income increased by certain tax preferences, increased or decreased by certain adjustments, and, in some cases, reduced by an exemption amount. The AMT, which is a 21 percent flat tax rate, is applied against the remaining balance and is payable to the extent it exceeds the taxpayer's regular tax liability.

Special care should be taken in evaluating investments that will produce AMT preferences and adjustments, such as private-activity bonds and passive-activity investments. The reduction in the gap between the AMT rate and the regular tax rate, as well as the increased number of items subject to the AMT calculation will, in all likelihood, expose many people to the AMT.

Investment Interest Deductions

Investment interest includes any interest that is paid or accrued on debts incurred for the purpose of purchasing or holding investment property. The deduction for investment interest expense is limited to net investment income for the tax year. For the phase-in period through 1990, a portion of the interest expense that exceeds investment income may be deducted.

The definition of investment interest specifically excludes 1) interest incurred to purchase or carry an investment in an active trade or business, 2) qualified residence interest, 3) consumer interest, and 4) interest incurred to purchase or carry an investment in passive activity, except to the extent that the interest can be allocated to portfolio income generated by the activity.

In short, interest expenses incurred in producing taxable portfolio income generally will be limited to the amount of such income. In addition, no tax deduction is allowed for interest expense that is incurred to purchase tax-exempt investments such as municipal bonds.

As stated earlier, the working physician looking for tax shelters must never lose sight of his or her overall financial objectives. There are often hidden costs involved in tax shelters, especially loss-generating investments, which can be very expensive. These costs can include promoter's compensation, inflated purchase price, high interest rates, and diversion of income to those involved in the transaction.

Tax shelters can be risky ventures. Physicians should look to other valid investments that give a good return before turning to the tax-shelter option. If a doctor determines that the tax-shelter route is the best alternative, then a cautious and informed investment plan should be invoked.

Summary

There are many tax-saving options still available to the practicing physician. The material contained in this article is a brief introduction to some of these options. To fully utilize any tax-saving provision, a full understanding of that provision is essential. Therefore, it is important that doctors seek professional advice before implementing a tax-reduction plan, including those discussed in this article.

Arthur Sauter is a tax supervisor, and Timothy Muehler is a tax consultant; both are employed by the firm of Deloitte, Haskins and Sells, Minneapolis.

MEDICINE

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PHYSICIAN-MOMS

A shorter work week or a modified style of practice may be the outcome when female physicians combine motherhood with their medical careers, according to the results of a national survey of 735 women physicians by *Physician's Management* magazine.

Physician-mothers reported a shorter work week than did the survey respondents who do not have children. Only 34 percent of the physician-moms reported that they work 50 hours per week or more—compared with 56 percent of the childless respondents. Forty-three percent of the total sample said they work 50 hours per week or more.

The respondents who have children were asked if they have shortened their work week or otherwise modified their practices in order to have more time to spend with their families; 64 percent said they had.

Of the total sample, nearly 51 percent reported that they are self-employed in medical practice, and among this group, 56 percent are in solo private practice.

NEW GROUP HEALTH CLINIC

The Physicians Clinic, located in the Midway area of St. Paul, in January became the newest medical center to be owned and operated by Group Health, Inc., marking the first time Group Health has purchased an existing medical clinic. The physicians and staff joined the Group Health, Inc. staff, and the 18,000 sq. ft. clinic facility, located near the corner of Lexington Avenue and I-94, is being purchased by Group Health, Inc.

HIGH MARKS FOR ZIDOVUDINE

A study in the November 25, 1988, *Journal of the American Medical Association,* involving the largest and most diverse AIDS patient cohort yet evaluated, confirmed that zidovudine (formerly AZT) greatly improves survival in AIDS patients, reporting 73 percent overall survival nearly a year after the start of therapy.

The study, by Terri Creagh-Kirk, M.S., of the Burroughs Wellcome Co., Research Triangle Park, North Carolina (makers of zidovudine), and colleagues, involved 4,805 patients with previous bouts of *Pneumocystis carinii* pneumonia (PCP) given zidovudine under a Food and Drug Administration "compassionate" or Treatment Investigational New Drug program. The program ran from October 1986 through March 1987.

Overall survival at 44 weeks after start of therapy was 73 percent, 88 percent in patients with better clinical status prior to therapy. "Data from the current study imply that initiation of treatment early in the disease process after the diagnosis of AIDS materially affects prognosis," the authors said. ". . . the finding of a strong association between stage of illness at time of initiaton of therapy and survival suggests the need for study in patients still earlier in the disease process." Patients with transfusion-acquired AIDS had a poorer prognosis than others, but this may be due to several factors, the authors said.

SPECIALTY SOCIETIES V.P.

Alvin L. Schultz, M.D., Minneapolis, has been elected vice president of the Council of Medical Specialty Societies (CMSS). A national organization made up of the 12 national societies with primary certification by the American Boards, the CMSS represents more than 240,000 physicians.

In November 1989, Schultz will serve as president-elect and will become president of CMSS in November 1990. Schultz is senior vice president, Medical Affairs Division of Health One Corporation.

SENIOR HEALTH CARE SPENDING

Senior citizen spending on health care has been rising faster than that of younger Americans. From 1980 to 1988, out-of-pocket spending by the elderly rose from $966 to $2,394, a 12 percent jump. During the same time, the elderly's income rose an average of 7.1 percent, according to the House Aging Committee. Seniors will spend 18.1 percent of their income on health care in 1988, up from 13 percent in 1980. The chief cause: a big jump in Medicare cost-sharing.

Source: Medicine & Health, *Nov. 7, 1988*

GIVING MS A WORKOUT

Local experts have disproved a popular medical opinion that aerobic exercise is harmful to people with multiple sclerosis (MS).

A study of 50 patients at the Fairview Multiple Sclerosis Center at Riverside Medical Center in Minneapolis showed that people with multiple sclerosis who are not severely disabled can exercise to increase their cardiovascular fitness. This refutes popular medical opinion that MS patients could not do aerobic exercise and that, if attempted, such exercise could be harmful. In fact, those who exercised showed a 10 percent increase in their level of fitness.

"Although exercise may not change the course of the disease, our feeling was that exercise might help the patients' general health, including their heart and lungs," said Randall Schapiro, M.D., director of the Fairview MS Center, who led the study.

WISCONSIN PEDIATRIC PATHOLOGY CHIEF

Ralph A. Franciosi, M.D., formerly at Minneapolis Children's Medical Center, has been appointed chief of Pediatric Pathology and Lab Medicine at Children's Hospital of Wisconsin. Franciosi is also professor of pathology at the Medical College of Wisconsin.

COLLEGE OF SURGEONS PRESIDENT

Oliver H. Beahrs, M.D., of Rochester was installed in October as the president of the American College of Surgeons, which is the largest organization of surgeons in the world.

Beahrs, professor of surgery, emeritus, at Mayo Medical School in Rochester, received his M.D. degree from Northwestern University in Evanston, Illinois, and received his M.S. from the University of Minnesota, Minneapolis.

1988 AIDS CASES

A Minnesota record 159 AIDS cases were reported to the Minnesota Department of Health in 1988, bringing the total number of cases reported in the state to 461.

The total is less than the 490 to 650 cases predicted earlier, but health department officials cautioned that AIDS cases may be reported in clusters, and a lull can be followed by a surge. The health department still predicts that the number of reported AIDS cases will climb to between 1,300 and 1,900 by the end of 1990.

HMO WINS RULING

An administrative law judge ruled in December that MedCenters Health Plan need not pay the 18 percent fee increase implemented by Park Nicollet Medical Center for 1988. The fee increase was awarded by an arbitration panel last January, but Judge Jon Lunde said Park Nicollet's fees were unreasonable and that it was charging MedCenters for unnecessary care.

Park Nicollet plans to appeal the decision.

OCD PREVALENCE

Obsessive-compulsive disorder (OCD) appears to be far more common in the United States than previously believed, with prevalence rates up to 60 times higher than indicated in earlier studies, according to a report in December's *Archives of General Psychiatry.* The authors, Marvin Karno, M.D., of UCLA, and colleagues, measured the prevalence of the disorder in more than 18,500 people in five communities as part of a National Insitute of Mental Health program. The authors said 468 people qualified for an obsessive-compulsive diagnosis at some point in their lives, for an average prevalence of 2.5 percent. Rates ranged from 1.9 percent to 3.3 percent over the five sites—40 to 60 times the rates estimated from previous clinical studies, the authors said.

RAMSEY CLINIC MED DIRECTOR

David Perry, M.D., lead physician of Family Medical Clinic in Amery, was appointed medical director of regional services for Ramsey Clinic effective January 1. In his new position, Perry directs the medical care provided to all Ramsey Clinic branch locations.

MEDICAID CHILDREN

The percentage of poor children with Medicaid coverage hasn't kept pace with the number of children falling into poverty. Between 1980 and 1985, the number of children on Medicaid grew 2.5 percent, according to the National Association of Children's Hospitals & Related Institutions. But during that time, the number of children in poverty grew 13 percent.

Source: Medicine & Health, *Oct. 24, 1988*

CALCIUM, ESTROGEN, AND OSTEOPOROSIS

The amount of dietary calcium a woman has taken throughout her lifetime and her levels of endogenous female sex hormones appear to be two of the key factors predicting postmenopausal bone loss, according to a study in the December 2, 1988, *Journal of the American Medical Association.*

A lifetime of adequate calcium intake coupled with adequate levels of serum estrogens may maximize bone density after menopause, said the report's authors, Jane A. Cauley, D.P.H., of the University of Pittsburgh School of Medicine, and colleagues. The authors studied 174 postmenopausal women over a three-year period and looked for correlations between changes in bone density and dietary calcium intake, use of calcium supplements, and blood levels of estrone, the primary sex hormone in postmenopausal women.

BME PRESIDENT, V.P.

Stephen P. Kelley, J.D., of Minneapolis, was elected president by the Minnesota Board of Medical Examiners for 1989. Kelley, a public member, was appointed to the Board in 1984 and has served on the Discipline Committee, the Legislative Committee, and various task forces. He is a partner in the law firm of Mackall, Crounse and Moore in Minneapolis.

Cassius M. C. Ellis, III, M.D., of Minneapolis, was elected vice president by the Board of Medical Examiners for 1989. Ellis is a surgeon who was appointed to the board in 1985 and serves as chair of the Licensing Committee. He is the director of surgical education at Metropolitan-Mount Sinai Hospital, Minneapolis.

VANSELOW NEW TULANE CHANCELLOR

Neal A. Vanselow, M.D., former vice president for health sciences at the University of Minnesota, has been named chancellor of Tulane University Medical Center in New Orleans. He assumed his new duties February 1.

Vanselow had been at the university since 1982. He came to Minnesota from the University of Nebraska Medical Center, where he had been chancellor from 1977 to 1982. A 1958 graduate of the University of Michigan

Medical School, Vanselow is an allergist.

AMERICAN MEDICAL TELEVISION

The American Medical Association has announced the creation of American Medical Television, a programming service offering focused, timely information and new perspectives on clinical, ethical, regulatory, and socioeconomic issues of interest and importance to practicing physicians. The two-hour programming block airs on the Discovery Channel every Sunday from 8 a.m. until 10 a.m. Central Standard Time. Regular programming on American Medical Television debuted January 8.

American Medical Television carries Continued Medical Education credits for its programs. Regular features will include AMA VideoClinics and Video Updates, plus a monthly program called Washington Update, which will feature news and discussion on health care issues and regulatory developments from the nation's capital. Hospital Satellite Network will provide a half-hour program for American Medical Television.

EFFECTS OF COMPETITION ON HOSPITALS

Greater cost-consciousness in hospitals, including introduction of Medicare's prospective payment system (PPS) for reimbursement, is leading to a decrease in the availability of intensive care unit beds and earlier discharge of medical ICU patients, a study in the December 2, 1988, *Journal of the American Medical Association* suggested. But this appears to be occurring without affecting in-hospital or six-month patient mortality or severity of illness in the medical ICU, according to the study by S. Allison Mayer-Oakes, M.D., MSPH, and colleagues at the UCLA Center for the Health Sciences, Los Angeles.

The study reviewed 400 ICU patients, Medicare and non-Medicare, from three California hospitals; 200 were admitted before the PPS began in 1983 and 200 after. The number of ICU beds decreased 31 percent after the PPS began, average ICU stay fell 14 percent for both groups, and patients were less likely to be discharged to go home. Particularly notable, however, was that the decrease in hospital length of stay was greater for the non-Medicare than the Medicare patients studied. "Perhaps changes in the Medicare reimbursement system are spilling over to affect these patients," the authors said.

HIGHER PHP PREMIUMS

About 3,000 Medicare patients in the St. Paul area who belong to Physicians Health Plan (PHP) are paying $15 more per month this year compared with 1988 in order to use Midway or St. John's Northeast hospitals. The rate increase is a result of the failure of PHP and HealthEast to agree to a 1989 contract covering Medicare enrollees in PHP's Select Plan, which is offered to senior citizens in the Twin Cities.

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1. For therapeutic use in patients with hypokalemia with or without metabolic alkalosis, in digitalis intoxication and in patients with hypokalemic familial periodic paralysis.
2. For the prevention of potassium depletion when the dietary intake is inadequate in the following conditions. Patients receiving digitalis and diuretics for congestive heart failure, hepatic cirrhosis with ascites, states of aldosterone excess with normal renal function, potassium-losing nephropathy, and with certain diarrheal states.
3. The use of potassium salts in patients receiving diuretics for uncomplicated essential hypertension is often unnecessary when such patients have a normal dietary pattern. Serum potassium should be checked periodically, however, and if hypokalemia occurs, dietary supplementation with potassium-containing foods may be adequate to control milder cases. In more severe cases supplementation with potassium salts may be indicated

CONTRAINDICATIONS: Potassium supplements are contraindicated in patients with hyperkalemia since a further increase in serum potassium concentration in such patients can produce cardiac arrest. Hyperkalemia may complicate any of the following conditions: Chronic renal failure, systemic acidosis such as diabetic acidosis, acute dehydration, extensive tissue breakdown as in severe burns, adrenal insufficiency, or the administration of a potassium-sparing diuretic (e.g., spironolactone, triamterene).

Wax-matrix potassium chloride preparations have produced esophageal ulceration in certain cardiac patients with esophageal compression due to enlarged left atrium.

All solid dosage forms of potassium chloride supplements are contraindicated in any patient in whom there is cause for arrest or delay in tablet passage through the gastrointestinal tract. In these instances, potassium supplementation should be with a liquid preparation.

WARNINGS: Hyperkalemia—In patients with impaired mechanisms for excreting potassium, the administration of potassium salts can produce hyperkalemia and cardiac arrest. This occurs most commonly in patients given potassium by the intravenous route but may also occur in patients given potassium orally. Potentially fatal hyperkalemia can develop rapidly and be asymptomatic. The use of potassium salts in patients with chronic renal disease, or any other condition which impairs potassium excretion, requires particularly careful monitoring of the serum potassium concentration and appropriate dosage adjustment.

Interaction with Potassium Sparing Diuretics—Hypokalemia should not be treated by the concomitant administration of potassium salts and a potassium-sparing diuretic (e.g., spironolactone or triamterene) since the simultaneous administration of these agents can produce severe hyperkalemia.

Gastrointestinal Lesions—Potassium chloride tablets have produced stenotic and/or ulcerative lesions of the small bowel and deaths. These lesions are caused by a high localized concentration of potassium ion in the region of a rapidly dissolving tablet, which injures the bowel wall and thereby produces obstruction, hemorrhage or perforation.

K-DUR tablets contain micro-crystalloids which disperse upon disintegration of the tablet. These micro-crystalloids are formulated to provide a controlled release of potassium chloride. The dispersibility of the micro-crystalloids and the controlled release of ions from them are intended to minimize the possibility of a high local concentration near the gastrointestinal mucosa and the ability of the KCl to cause stenosis or ulceration. Other means of accomplishing this (e.g., incorporation of potassium chloride into a wax matrix) have reduced the frequency of such lesions to less than one per 100,000 patient years (compared to 40–50 per 100,000 patient years with enteric-coated potassium chloride) but have not eliminated them. The frequency of GI lesions with K-DUR tablets is, at present, unknown. K-DUR tablets should be discontinued immediately and the possibility of bowel obstruction or perforation considered if severe vomiting, abdominal pain, distention, or gastrointestinal bleeding occurs

Metabolic Acidosis—Hypokalemia in patients with metabolic acidosis should be treated with an alkalinizing potassium salt such as potassium bicarbonate, potassium citrate, potassium acetate, or potassium gluconate.

PRECAUTIONS: The diagnosis of potassium depletion is ordinarily made by demonstrating hypokalemia in a patient with a clinical history suggesting some cause for potassium depletion. In interpreting the serum potassium level, the physician should bear in mind that acute alkalosis per se can produce hypokalemia in the absence of a deficit in total body potassium while acute acidosis per se can increase the serum potassium concentration into the normal range even in the presence of a reduced total body potassium. The treatment of potassium depletion, particularly in the presence of cardiac disease, renal disease, or acidosis requires careful attention to acid-base balance and appropriate monitoring of serum electrolytes, the electrocardiogram, and the clinical status of the patient.

Laboratory Tests: Regular serum potassium determinations are recommended. In addition, during the treatment of potassium depletion, careful attention should be paid to acid-base balance, other serum electrolyte levels, the electrocardiogram, and the clinical status of the patient, particularly in the presence of cardiac disease, renal disease, or acidosis.

Drug Interactions: Potassium-sparing diuretics; see **WARNINGS**.

Carcinogenesis, Mutagenesis, Impairment of Fertility: Long-term carcinogenicity studies in animals have not been performed.

Pregnancy Category C: Animal reproduction studies have not been conducted with K-DUR. It is also not known whether K-DUR can cause fetal harm when administered to a pregnant woman or can affect reproduction capacity. K-DUR should be given to a pregnant woman only if clearly needed.

Nursing Mothers: The normal potassium ion content of human milk is about 13 mEq per liter. Since oral potassium becomes part of the body potassium pool, so long as body potassium is not excessive, the contribution of potassium chloride supplementation should have little or no effect on the level in human milk.

Pediatric Use: Safety and effectiveness in children have not been established.

ADVERSE REACTIONS: One of the most severe adverse effects is hyperkalemia (see **CONTRAINDICATIONS, WARNINGS,** and **OVERDOSAGE**). There have also been reports of upper and lower gastrointestinal conditions including obstruction, bleeding, ulceration, and perforation (see **CONTRAINDICATIONS** and **WARNINGS**); other factors known to be associated with such conditions were present in many of these patients.

The most common adverse reactions to oral potassium salts are nausea, vomiting, abdominal discomfort, and diarrhea. These symptoms are due to irritation of the gastrointestinal tract and are best managed by taking the dose with meals or reducing the dose.

Skin rash has been reported rarely

OVERDOSAGE: The administration of oral potassium salts to persons with normal excretory mechanisms for potassium rarely causes serious hyperkalemia. However, if excretory mechanisms are impaired or if potassium is administered too rapidly intravenously, potentially fatal hyperkalemia can result (see **CONTRAINDICATIONS** and **WARNINGS**). It is important to recognize that hyperkalemia is usually asymptomatic and may be manifested only by an increased serum potassium concentration and characteristic electrocardiographic changes (peaking of T-waves, loss of P-waves, depression of S-T segment, and prolongation of the QT-interval). Late manifestations include muscle-paralysis and cardiovascular collapse from cardiac arrest.

Treatment measures for hyperkalemia include the following:

1. Elimination of foods and medications containing potassium and of potassium-sparing diuretics.
2. Intravenous administration of 300 to 500 ml/hr of 10% dextrose solution containing 10–20 units of insulin per 1,000 ml.
3. Correction of acidosis, if present, with intravenous sodium bicarbonate.
4. Use of exchange resins, hemodialysis, or peritoneal dialysis.

In treating hyperkalemia, it should be recalled that in patients who have been stabilized on digitalis, too rapid a lowering of the serum potassium concentration can produce digitalis toxicity.

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Wempner from page 70

REECE: *How old were you when you were doing all of this?*

WEMPNER: About 43.

REECE: *Did this fellowship give you a new perspective on life?*

WEMPNER: Yes. Exactly. New things opened up for me. My self-esteem improved. I felt confident. I learned I was not that far off from where I wanted to be clinically, and I discovered that my experience was a very valuable commodity.

REECE: *So this mid-life sabbatical gave you the chance to sit back and reflect and to look forward, too.*

WEMPNER: That's right, and mid-life is your best chance to look backward and forward. As a matter of fact, to be eligible for the program, you had to be 35 years old, and you had to have been in practice at least seven years.

REECE: *Describe for us, first, the Bush Foundation and why it's doing this; second, what the Bush Clinical Fellows Program is; and third, how many doctors are going through this program.*

WEMPNER: The Bush Foundation is a local philanthropic group that was started by Archibald Bush many years ago. Archibald Bush was one of the founders of 3M. The Bush Foundation had a program called the Bush Leadership Program for about 20 years. It's trained many middle-management people in this area to become leaders. The Bush program has given them time and support to get further training. The Bush Foundation has been happy with that program and thought it might be a model for a way to improve health care in the community, especially in rural communities. They said: "It seems to us that people in rural areas may be underserved as compared with their metropolitan counterparts, because they don't have secondary and tertiary specialists in those areas. Perhaps the primary physicians need to do more. Maybe if we can give these primary physicians a chance to develop more skills and improve their confidence, we'll have upgraded care in the rural areas."

So they started the Bush Clinical Fellows Program. Doug Fenderson, who was the head of continuing medical education at the University of Minnesota at that time, was instrumental in starting the program. Since 1978, the Bush Foundation has given awards to 86 physicians. The program ranges anywhere from three to twelve months. The areas of study are variable—administration, geriatric medicine, acute care, emergency medicine, sports medicine, and so forth.

"The pressures on physicians make them a lot more introspective. It makes physicians more critical of themselves and makes them want to keep their skills up to date."

REECE: *Do you have more candidates than acceptances?*

WEMPNER: It's a competitive program. We usually get about 30 to 35 applicants a year, and we usually select 10 to 13.

REECE: *Could you give me a profile of these physicians?*

WEMPNER: They're usually physicians in mid-career. They're physicians who are searching for where they want to go and who feel a need to sharpen and hone their skills. They are leaders in their communities. By and large, the people who have a lot of character. The judges look for well-integrated physicians.

REECE: *How does one apply?*

WEMPNER: The Bush Fellowship takes applications once a year on March 1. A policy board screens these applications. The board consists of ten people—physicians and nonphysicians. They select 18 to 20 applicants who are invited to a two-day seminar during which they're given more information about leadership skills. They also go through two sets of interviews. During that time, the judges decide who gets the awards.

REECE: *And what is the award? Is it monetary?*

WEMPNER: Yes. Currently, winners get $3,500 a month for anywhere from three months to a year. They get $1,500 for travel and $2,500 for tuition. In addition, they can receive up to another $10,000 for tuition for more expensive programs.

REECE: *Some of these fellows go for their MBA or another type of graduate degree, do they not?*

WEMPNER: We have a number of people who will receive their master of business administration. We've had people going to MIT, to Harvard. We've also had a number of people who have received a master of administration from the University of Wisconsin. Others have gone to the University of Minnesota and to the College of St. Thomas.

REECE: *What is the report back from these graduates? Do these newly minted degrees have a profound effect on their lives?*

WEMPNER: The jury is still out. As you well know, interest in administration has gone up in the last two to three years, and people who have been in those programs are just finishing, or are still in them now. So not enough time has elapsed to tell what kind of impact they're going to have in the community. The impact of the clinical programs has been quite great. We just completed a 10-year evaluation by Dr. Ilene Harris, and she has found that all of the programs have been beneficial, and most of the programs have been *highly* beneficial, both to the fellows and to their communities.

REECE: *Who is Dr. Harris? Could you describe her findings more precisely?*

continued

WEMPNER: Dr. Harris is an educational psychologist in the curriculum development department at the University of Minnesota Medical School. She has been with the Bush program since its inception. When the fellows start the program, she helps them to define their goals. At the end of the program, she interviews them and measures what they have achieved as compared with what they said they were going to achieve. She also has assessed how they think they have done, both from a personal standpoint and in terms of their communities. She's contacted representatives in each community and has asked them what kind of impact the program has had.

REECE: *This Bush Clinical Fellowship for doctors is something new for medicine. For years, businesses and corporations have sent their high-level executives to advanced management programs. But now the Bush Foundation is giving physicians the opportunity to take a more reflective look at themselves. Do you think the accelerating pace of change in medicine is forcing physicians to reconsider their position in the scheme of things?*

WEMPNER: That could be, but the need for mid-life repositioning has always been there. I think that it's probably been accentuated more recently because of the rapid change. The pressures on physicians make them a lot more introspective. It makes physicians more critical of themselves and makes them want to keep their skills up to date.

As you suggest, it used to be that once you finished medical school, you could coast to retirement with a couple of refresher courses. But with medicine changing so much, that just isn't so anymore. A program like this enables physicians to identify their own needs in their practices and in their communities and tailor-make their programs to satisfy those needs. This contrasts with traditional medical continuing education courses, which are more strictly formulated.

REECE: *As part of that introspection process within the Bush Fellowship, the winning candidates go to the Menninger Clinic for a five-day course in a program called "Physicians in Transition." Has that course helped physicians and their spouses rethink their lives and to make mid-course corrections in their careers?*

WEMPNER: Very much so. We give all the physicians who are awarded a Bush Fellowship an opportunity to attend that program, and most do. Those who do, report that the "Physicians in Transition" course is the pinnacle of their sabbatical.

REECE: *Why is that?*

WEMPNER: It gives them a chance to assess themselves personally—to find out why they are where they are, and why they are who they are. For many people, that assessment has been a confirmation. For others, it's a chance to

OCD References from page 93

23. Thoren P, Asberg M, Cronholm B, et al.: Clomipramine treatment of obsessive-compulsive disorder: I. A controlled clinical trial. Arch Gen Psychiatry 37:1281-1285, 1980.
24. Insel T, Murphy DL, Cohen RM, et al.: Obsessive-compulsive disorder. A double-blind trial of clomipramine and clorgyline. Arch Gen Psychiatry 40:605-612, 1983.
25. Flament MF, Rapoport JL, Berg CJ, et al.: Clomipramine treatment of childhood obsessive-compulsive disorder. A double-blind controlled study. Arch Gen Psychiatry 42:977-983, 1985.
26. Marks IM, Stern RS, Mawson D, et al.: Clomipramine and exposure for obsessive-compulsive exposure. I. Brit J Psychiat 136:1-25, 1980.
27. Ananth J, Pecknold JC, Van Der Steen N, et al.: Double blind comparative study of clomipramine and amitriptyline in obsessive neurosis. Prog Neuro-Psychopharmacol 5:257-263, 1981.
28. Yaryura-Tobias JA, Neziroglu F, Bergman L: Chlorimipramine, for obsessive-compulsive neurosis: An organic approach. Current Therapeutic Research 20:541-548, 1976.
29. Montgomery SA: Clomipramine in obsessional neurosis: A placebo controlled trail. Pharm Med 1:189-192, 1980.
30. Kim SW, Dysken MW: A review of serotonin reuptake inhibitors in obsessive-compulsive disorder. Psychiatric Annals 18:373-382, 1988.
31. Carlsson A, Corrodi H, Fuze K, et al.: Effect of antidepressant drugs on the depletion of intraneuronal brain 5-hydroxytryptamine stores caused by 4-methyl-alpha-ethyl-metatyramine. Eur J Pharmacol 5:357-366, 1969.
32. Perse TL, Greist JH, Jefferson JW, et al.: Fluvoxamine treatment of obsessive-compulsive disorder. Am J Psychiatry 144:1543-1548, 1987.
33. Price LH, Goodman WK, Charney DS, et al.: Treatment of severe obsessive-compulsive disorder. Am J Psychiatry 144:1059-1061, 1987.
34. Goodman WK, Price LH, Rasmussen SA, et al.: Yale-Brown Obsessive Compulsive Scale (Y-BOCS): Part I. Development, use, and reliability. Arch Gen Psychiatry (in press).
35. Goodman WK, Price LH, Rasmussen SA, et al.: Yale-Brown Obsessive Compulsive Scale (Y-BOCS): Part II. Validity. Arch Gen Psychiatry (in press).
36. Naranjo CA, Sellers EM, Lawrin MO: Modulation of ethanol intake by serotonin uptake inhibitors. J Clin Psychiatry 47:(Suppl 4); 16-22, 1986.

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change their direction, their values—to change what they want to be.

REECE: *Could you describe the Menninger course for us?*

WEMPNER: The program is a high-intensity, one-week course. Physicians may participate with or without a spouse, although people who don't take their spouses say they're very sorry they didn't. It consists of some didactic sessions (about half) and group sessions. Spouses are also included in those groups, but not in the same group as their physician spouse.

The talks and techniques Menninger uses bring repressed concerns to the surface, where they can be prioritized. Each individual makes decisions about how to deal with these issues. Some are abandoned (finally). Others are seen in a new perspective that allows physicians to expand and develop them. It is really a sorting-out process.

REECE: *Do you think the courses change people's visions of themselves?*

WEMPNER: Yes, in many cases it helps physicians to confirm or to reaffirm their visions of themselves. Also, they are often able to deal with areas that they maybe hadn't thought about, or maybe didn't want to think about. They deal with some of those concerns during that week and feel a lot better for having dealt with them. And they continue to use what they have learned after they return home.

REECE: *Do you think in this age of rapid technological advance, competitive pressures, and uncertainty about the future that physicians are feeling a lot more vulnerable about themselves and their destinies? Indeed, many of us wonder whether we can survive these whitewaters of turbulent change and still stay afloat.*

WEMPNER: Absolutely. That's especially true of today's malpractice crisis. The pressures, with closer scrutiny, rapid technological changes, and demand for new skills, have driven many doctors and spouses to the psychological and financial edge.

REECE: *Earlier, you mentioned that the confidence of the young family practice graduates set you back a little and made you question your own skills. Does the new generation differ from yours?*

WEMPNER: No, not really. Now, family physicians emerging from residency programs are better trained, but their values don't differ much from mine. Those committed to more balance in their lives are less embarrassed about discussing it openly. The most important thing is commitment to good patient care.

REECE: *Tell me about your current career. How much time do you spend in practice, how much time with the Bush Fellowship Program, and what are you doing differently than you did before you attended the program?*

WEMPNER: I am in practice full time as a family physician. My responsibility as the director of the Bush Clinical Fellows Program takes an additional 10 to 15 hours a week. I'm able to handle those extra tasks on my day off, evenings, and weekends. I find my Bush responsibility refreshing enough to make it an avocation, so I'm able to do both things. I feel strongly that physician administrators do better administrating when they have one foot in clinical practice. As physicians, our strength comes from our patients. If we continue to care for patients, we can do a better job as administrators.

REECE: *I notice when I go to the Mayo Clinic to talk to its physician leaders, these leaders always show up with a stethoscope jutting prominently from their pockets or slung casually over their shoulders. The message is: No self-respecting physician does administration full time. One always keeps one foot in the clinical trenches.*

WEMPNER: I agree.

REECE: *I'm sure this Bush experience gives you a view of the medical profession that you hadn't had before. You're looking from on-high at the pressures afflicting your fellow physicians. Are you troubled about the direction medicine is going?*

"The pressures, with closer scrutiny, rapid technological changes, and demand for new skills, have driven many doctors and spouses to the psychological and financial edge."

WEMPNER: My experience in dealing with physicians through the program has given me a confidence in physicians as people. By and large, physicians are a very altruistic bunch. I've discovered that if you give them a chance, they'll do wonderful things for their communities and for their patients. They not only learn technical and cognitive skills during their fellowship, but they spend a lot of time learning leadership skills or cultivating their innate leadership skills. And they take those skills back to their communities. That's the wonderful part of the program—to see what happens then.

REECE: *As part of your culling process in picking potential Bush fellows, I gather you look for leadership capacity that may not be fully honed and polished?*

WEMPNER: Absolutely. The whole process brings out the individual who has leadership ability. The program trains doctors to take a look at their community needs, their personal needs, and it teaches them how to go into the world and satisfy those needs or develop skills that will satisfy those needs. Developing goals and finding solutions to those goals is a lifelong process.

REECE: *Originally this program concentrated on rural physicians, but now there has been a shift to*

continued

include urban physicians, too. When did that shift occur and why?

WEMPNER: About three years ago, we recognized the need and demand for physicians in administration. The nature of physicians being what it is, we knew physicians would respond. Plus we felt that it would be in the best interests of the communities to give physicians more formal management and leadership skills to be more competent administrators. So we opened the program to metropolitan physicians who wanted to study to take a major role in administration or policy development. There is some talk now about extending that program to include nonmetropolitan physicians in clinical areas also, if they can benefit an underserved population. Rural physicians can study in either clinical or administrative/policy development areas.

REECE: *There is also a push to develop flexible academic programs for physician leaders at the University of Wisconsin in Madison and at St. Thomas College in St. Paul. These programs allow physicians to gain some of these leadership skills without being Bush fellows. To your knowledge, are physicians taking advantage of those opportunities?*

WEMPNER: Yes. I've been associated with both of these programs, and I see a number of physicians other than Bush fellows interested in them. Both programs now offer part-time study. The whole idea of the physician as an administrator is being developed. The physician-administrator profession is in a position similar to that of the hospital-administrator profession back in the fifties, when it was started at the University of Chicago. Just as that profession was defined and developed, we'll see the physician-administrator profession defined and developed through programs like those offered at Wisconsin and St. Thomas.

REECE: *I couldn't help but notice that the American College of Physician Executives and the American Academy of Medical Directors merged recently because the field of administrative medicine is exploding. It's a rapidly evolving discipline. Will it be good for medicine to have physician administrators?*

WEMPNER: Yes, I think so. But it's important for physicians not to drift too far from where they have been. They're most valuable as administrators if they primarily stick to the clinical side of management.

REECE: *And if they stay within the context of their community?*

WEMPNER: Yes, stay within the context of their community and within the context of clinical medicine. If they leave clinical medicine completely and go into administration, they often feel uncomfortable. One of my Policy Board members observed that it takes about five years before they lose their feeling of being physicians. After that point, they lose their credibility as physicians, and they're not much different from nonphysician administrators.

REECE: *Why are physicians going into administration? What is the difference between a medical administrator and a medical leader?*

WEMPNER: Physicians have been getting more and more frustrated because they perceive they're losing control of health care delivery. There is a real need and a hunger in many, if not all of us, to recapture some of that control. Physicians have thought, "If I go into administration, then I'll have something to say about where health care is going, and I'll be able to have some kind of impact."

But that's not always true. Physicians get confused about the difference between leadership and management. Management is really just a tool that leaders can use. They still have to be leaders. They still have to develop their leadership skills, and they still have to have a strong constituency to lead.

REECE: *And if they leave clinical medicine they may lose their constituency?*

WEMPNER: Yes. You still have to be perceived by your followers and your peers as one of them. ■

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FEBRUARY 1989

5-12 **West Indies and the Panama Canal Travel Medical Seminar Program** North Central Medical Conference. CONTACT: North Central Medical Conference, 1845 Hampshire Avenue, Suite 200, St. Paul, Minnesota 55116.

10 **Burn Care Update** St. Paul-Ramsey Medical Center Continuing Medical Education. CONTACT: Bonnie Young, 640 Jackson Street, St. Paul, Minnesota 55101; (612) 221-3977.

10-11 **Gastrointestinal Laser Surgery** Abbott Northwestern Hospital; Abbott Northwestern Hospital, Minneapolis, Minnesota. CONTACT: Tim Schuh, CME Office, Abbott Northwestern Hospital, 800 East 28th Street, Minneapolis, Minnesota 55407; (612) 863-5461.

17 **Pyelogram Conference** Minnesota Urological Society; L'Hotel Sofitel, Minneapolis, Minnesota. CONTACT: Linda Reynolds, Executive Secretary, Minnesota Urology Society, 6750 France Avenue South, #149, Edina, Minnesota 55435; (612) 925-0533.

17 **Stroke Management** The Duluth Clinic.; Fitger's Spirit of the North Theater, Duluth, Minnesota. CONTACT: James G. Brueggeman, M.D., 400 East Third Street, Duluth, Minnesota 55805; (218) 722-8364, ext. 179.

20 **Pyelogram Conference** Minnesota Urological Society; L'Hotel Sofitel, Minneapolis, Minnesota. CONTACT: Linda Reynolds, Executive Secretary, Minnesota Urological Society, 6750 France Avenue South, #149, Edina, Minnesota 55435; (612) 925-0533.

20-24 **Practical Problems in Primary Care Medicine** University of Minnesota Office of CME; Hotel Sanur Beach, Bali, Indonesia. CONTACT: Office of CME, Box 202 UMHC, 420 Delaware Street SE, Minneapolis, Minnesota 55455; (612) 626-5525.

20-24 **Team Management of Diabetes Mellitus** International Diabetes Center; International Diabetes Center, Park Nicollet Medical Foundation, Minneapolis, Minnesota. CONTACT: Lucy Mullen, R.N., B.S., Assistant Director of Education, Park Nicollet Medical Foundation, 5000 West 39th Street, Minneapolis, Minnesota 55416; (612) 927-3393.

22-23 **Geriatric Drug Therapy Symposium** University of Minnesota Office of CME; Radisson University Hotel, Minneapolis, Minnesota. CONTACT: Office of CME, Box 202 UMHC, 420 Delaware Street SE, Minneapolis, Minnesota 55455; (612) 626-5525.

22-25 **Thoracic Organ Transplantation** Abbott Northwestern Hospital; Westin La Paloma, Tucson, Arizona. CONTACT: Tim Schuh, CME Office, Abbott Northwestern Hospital, 800 East 28th Street, Minneapolis, Minnesota 55407; (612) 863-5461.

23-24 **Primary Care of CNS Disease Trauma Conference** Hennepin County Medical Center/Hennepin Faculty Associates/St. Paul-Ramsey Medical Center; Holiday Inn Town Square, St. Paul, Minnesota. CONTACT: Eugenia C. Kassar, Office of Academic Affairs, 701 Park Avenue, Suite 4220, (AdaBec #834) Minneapolis, Minnesota 55415; (612) 347-2075.

24-25 **Preventing Acute Myocardial Infarction** University of Minnesota Office of CME. CONTACT: Office of CME, Box 202 UMHC, 420 Delaware Street SE, Minneapolis, Minnesota 55455; (612) 626-5525.

24-25 **General Laser Surgery: "A Hands-on" Training Program** Abbott Northwestern Hospital; Abbott Northwestern Hospital, Minneapolis, Minnesota. CONTACT: Tim Schuh, CME Office, Abbott Northwestern Hospital, 800 East 28th Street, Minneapolis, Minnesota 55407; (612) 863-5461.

Feb 24-Mar 11 **South American Adventure Travel Medical Seminar Program** North Central Medical Conference. CONTACT: North Central Medical Conference, 1845 Hampshire Avenue, Suite 200, St. Paul, Minnesota 55116.

Feb 27-Mar 1 **Partners in Managing Type II Diabetes** International Diabetes Center; International Diabetes Center, Park Nicollet Medical Foundation, Minneapolis, Minnesota. CONTACT: Lucy Mullen, R.N., B.S., Assistant Director of Education, Park Nicollet Medical Foundation, 5000 West 39th Street, Minneapolis, Minnesota 55416; (612) 927-3393.

MARCH 1989

1-3 **Seventh Annual Critical Care Conference** St. Paul-Ramsey Medical Center Continuing Medical Education. CONTACT: Bonnie Young, 640 Jackson Street, St. Paul, Minnesota 55101; (612) 221-3977.

3-5 **Neurology in Clinical Practice** Mayo Clinic/Mayo Foundation; Telemark Resort, Cable, Wisconsin. CONTACT: Rita Kunz, 200 First Street SW, Mayo Clinic, Rochester, Minnesota 55905; (507) 284-2509.

6-10 **Medical Update, 1989 Focusing On: Cardiology, Critical Care, Gastroenterology, Nephrology, Nutrition, Orthopedic Surgery, Pediatrics, Radiology, Surgery** University of Minnesota Office of CME; Hughes Conference Center, Holy Cross Hospital, Fort Lauderdale, Florida. CONTACT: Office of CME, Box 202 UMHC, 420 Delaware Street SE, Minneapolis, Minnesota 55455; (612) 626-5525.

10 **Tenth Annual Occupational Medicine Update** St. Paul-Ramsey Medical Center Continuing Medical Education. CONTACT: Bonnie Young, 640 Jackson Street, St. Paul, Minnesota 55101; (612) 221-3977.

13-17 **Team Management of Diabetes Mellitus** International Diabetes Center; International Diabetes Center, Park Nicollet Medical Foundation, Minneapolis, Minnesota. CONTACT: Lucy Mullen, R.N., B.S., Assistant Director of Education, Park Nicollet Medical Foundation, 5000 West 39th Street, Minneapolis, Minnesota 55416; (612) 927-3393.

16-17 **Family Practice Today** St. Paul-Ramsey Medical Center Continuing Medical Education. CONTACT: Bonnie Young, 640 Jackson Street, St. Paul, Minnesota 55101; (612) 221-3977.

17 **Pyelogram Conference** Minnesota Urological Society; L'Hotel Sofitel, Bloomington, Minnesota. CONTACT: Linda Reynolds, Executive Secretary, 6750 France Avenue South, #149, Edina, Minnesota 55435; (612) 925-0533.

17-18 **Advanced Laser Course for Gynecologists** Abbott Northwestern Hospital; Abbott Northwestern Hospital, Minneapolis, Minnesota. CONTACT: Tim Schuh, CME Office, Abbott Northwestern Hospital, 800 East 28th Street, Minneapolis, Minnesota 55407; (612) 863-5461.

27-31 **Team Management of Diabetes Mellitus** International Diabetes Center; International Diabetes Center, Park Nicollet Medical Foundation, Minneapolis, Minnesota. CONTACT: Lucy Mullen, R.N., B.S., Assistant Director of Education, Park Nicollet Medical Foundation, 5000 West 39th Street, Minneapolis, Minnesota 55416; (612) 927-3393.

Mar 30-April 1 **Medical Directors Training Program** University of Minnesota; Office of CME; Education, Riverwood Conference Center, Monticello, Minnesota. CONTACT: Office of CME, Box 202 UMHC, 420 Delaware Street SE, Minneapolis, Minnesota 55455; (612) 626-5525.

APRIL 1989

1 **Minnesota Society of Clinical Pathologists Spring Conference** Radisson University Hotel, Minneapolis, Minnesota. CONTACT: Carmela Brown, 2221 University Avenue SE, Suite 400, Minneapolis, Minnesota 55414; (612) 378-1875.

5-7 **Pulmonary Function Testing Workshop** St. Paul-Ramsey Medical Center. CONTACT: Bonnie Young, St. Paul-Ramsey Medical Center, 640 Jackson Street, St. Paul, Minnesota 55101; (612) 221-3977.

6-7 **Annual Obstetrics and Gynecology Update** St. Paul-Ramsey Medical Center. CONTACT: Bonnie Young, St. Paul-Ramsey Medical Center, 640 Jackson Street, St. Paul, Minnesota 55101; (612) 221-3977.

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February 10	Burn Care Update, St.Paul
February 23-24	Primary Care of CNS Disease and Trauma, St. Paul
March 10	Tenth Annual Occupational Medicine Update, Minneapolis
March 16-17	Family Practice Today, St. Paul
April 5-7	Pulmonary Function Testing, St. Paul
April 6-7	Annual Obstetrics and Gynecology Update, Minneapolis
April 7	ENT Update, St. Paul
June 21-23	Annual Critical Care Medicine Update, St. Paul
September 11-22	Seventh Annual Occupational Health and Safety Institute, St. Paul
September 22	Women in Transition, St. Paul
October 4-6	Pulmonary Function testing Workshop, St. Paul
October 19-21	Fifth Ramsey Trauma Conference, St. Paul
November 16-18	Clinical Strategies in Primary Care Medicine, St. Paul
December 6-8	Annual Cardiopulmonary Medicine Update, St. Paul

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HealthWorks Northwest Occupational Medicine Center is seeking two (2) physicians for its staff. Appointments are scheduled for January 1989 and July 1989. BE or BC desirable. Physicians (family practice and emergency medicine) with an interest in occupational medicine are also invited to apply. Please send curriculum vitae to: Scott Lindblom, Physician Recruiter, Fairview Physician and Clinic Services, 2312 South Sixth Street, Minneapolis, Minnesota 55454; or call: (612) 371-6235. 3-2/89

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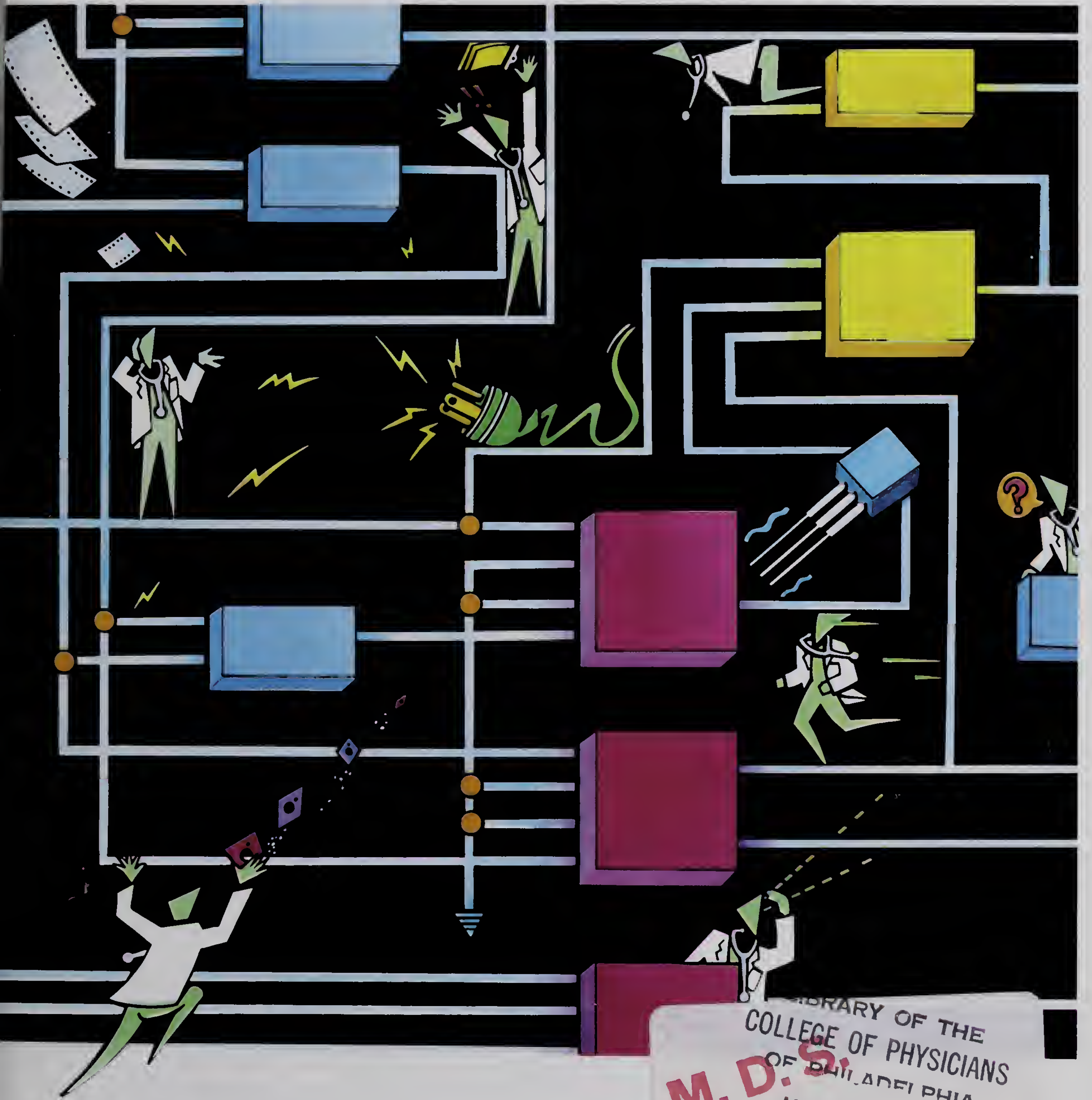

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MARCH 1989

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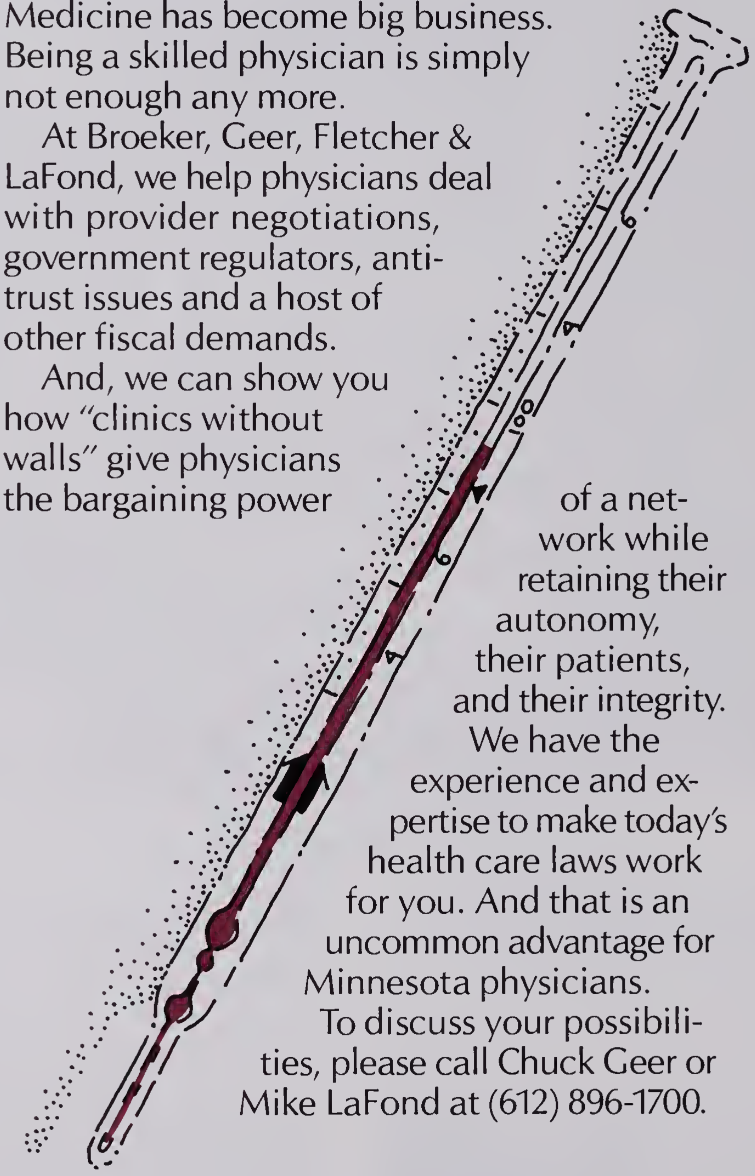

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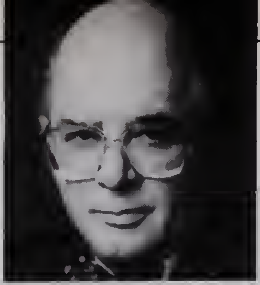


RICHARD L. REECE, M.D.

Thoughts About Medical Writing, Editing, and Publishing

This issue contains two interviews. The first is with Glen Griffin, M.D., editor-in-chief of *Postgraduate Medicine* and *Senior Patient*. The second is with Francis Davis, M.D., publisher of *Private Practice*. You may wonder why I chose to interview these two physicians.

I'll tell you why.

► First, I'm a medical writer, editor, and publisher myself. Out of plain curiosity, I wanted to know what made these men tick.

► Second, I was interested in their work styles. How many hours do they work? Do they still practice medicine? How do they organize their work?

► Third, I wanted to find out something of the economics of their publications. How many subscribers do they have? Is their circulation controlled? Are their journals profitable?

► Fourth, I wanted to learn how I might make *Minnesota Medicine* a better publication.

► Fifth, I sought to discern how these gentlemen read the political tea leaves.

This editorial sums up what I gleaned on these five points from my fellow medical-word-men.

What Makes Editors and Publishers Tick

It struck me that three emotions drive these gentlemen: love of language, respect for communication, and power to sway events.

► With Dr. Griffin, whose two publications have a combined circulation of 270,000 or so, love of language and communication skills predominated. He sees language as a way of reaching his fellow physicians, and he believes if he and his journals have clarity and brevity, messages will break through to help patients.

► Dr. Davis has a more political game in mind. He wants to use his publication as an instrument for guiding the political fortunes of medicine. His political view is that medicine, practiced conservatively, freely, and in a fee-for-service fashion, is the best medicine. Some of his strongest weapons in this fight are the surveys he conducts. Through these surveys, he may know more about the political attitudes and state of mind of America's practicing physicians than anybody else.

Work Styles

I found both of these men to be hardworking and disciplined.

► Dr. Griffin has to be. He heads two separate editorial staffs, for *Postgraduate Medicine* and *Senior Patient*. And, if these burdens were not enough, he and William Castelli, M.D., medical director of the Framingham Heart Study, have just published a nationally distributed book: *Good Fat, Bad Fat—How to Lower Your Cholesterol and Beat the Odds of a Heart Attack.*

► Dr. Davis works hard, too, but at a variety of different things. He is also in the banking business, runs a medical practice, heads a couple of conservative foundations, and "consults" with a number of leading political leaders, thinkers, and policymakers. Then, too, he manages *Private Practice* with a strong but delegating hand. He does an impressive number of things well.

The Economics of Their Publications

Both these men run publications with controlled circulations. This is a common practice in medical publishing—to have a "controlled" circulation of physicians who, for example, are in medical specialties that prescribe drugs. This circumstance has caused some critics to charge that most medical publications are hostages of the pharmaceutical houses. I doubt this. With neither man did I detect the slightest evidence that advertisers dictate editorial policy. The other way to go, of course, is to have a journal that supports itself solely on subscriber fees. To my knowledge, there are few such journals in the United States. Even the *New England Journal of Medicine,* though it charges a healthy yearly subscription fee, derives most of its revenues from advertisers. The policy of most journals is to restrict advertising pages to about half the page volume to circumvent the charge of advertiser-dominance.

Improving *Minnesota Medicine*

► From Dr. Griffin, I learned that we ought to pay more attention to simplifying the copy, making words and paragraphs shorter, spending more time and thought on the graphics, making titles clearer, and coming up with new ideas and new audiences. I thought, for example, Dr. Griffin's idea of putting instructional "Patient Notes" on *Senior Patient's* inside back cover so physicians could copy instructions to patients was excellent. I was also impressed with the

Editor's Notebook *to page 138*

The Power of Simple Words

REECE: *Dr. Griffin, you're editor-in-chief of* Postgraduate Medicine *and of a new magazine called* Senior Patient. *Before coming to Minneapolis a year and a half ago to assume these new duties, you were in primary care, in pediatrics, for 29 years, the last 22 of them in Bountiful, Utah. How did you get into publishing?*

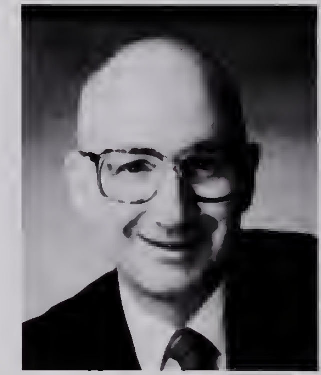
GRIFFIN: I wrote a syndicated newspaper column for about nine years and a number of books. I was also involved in a small company called Medical Practice Systems, where we developed patient education material that was marketed across the country. I've had a long-time interest in communicating and helping people understand medical answers.

REECE: *In addition to your proclivity for writing, you have a history of innovation. You were featured on the front page of the* Wall Street Journal *for designing and building a drive-up-to-your-own-room medical office.*

GRIFFIN: I never did like the idea of conventional medical offices, because they're so impersonal and inefficient. So we created an office where people would drive their cars up under a carport. They parked in front of a room where there was a green light and came in that room. Two of the patient rooms were for accidents and the six others were informal and conversational and were furnished like small living rooms. We would examine the kids on the sofa or sitting on Mom's lap. I was in an easy chair. There was a sofa, hanging lamp, carpeting—it was very comfortable. Then we had a couple of accident rooms that were more conventional. We had closed-circuit TV and infrared sensors that triggered lighting, so we could tell where people were at any time.

REECE: *After conducting such an innovative practice, it must have been traumatic for you to switch from pediatrics to medical publishing for adults.*

GRIFFIN: It was intriguing but not traumatic. I love writing. I love editing and communicating. But I



GLEN GRIFFIN, M.D.

Griffin to page 171

Glen Griffin, editor of McGraw-Hill's Postgraduate Medicine *and* Senior Patient, *is a man after my own heart. He believes in the power of the King's English. If you have read any of his editorials in* Postgraduate Medicine, *you know this gentle man has firm command of his words. He makes every word count, and he counts every word. His discipline has paid off. Surveys show readership of his editorials in* Postgraduate Medicine *has soared to record heights.*

Dr. Griffin calls his writing style punchy. I call it powerful. In any event, I'm sure he would agree with the following summary of what makes a good writer. This summary is from the 1906 edition of the King's English, *by H. W. Fowler and G. G. Fowler, the Oxford University Press.*

Any one who wishes to become a good writer should endeavour, before he allows himself to be tempted by the more showy qualities, to be direct, simple, vigorous, and lucid.

This general principle may be translated into practical rules in the domain of vocabulary as follows:

Prefer the familiar word to the far-fetched.
Prefer the concrete word to the abstract.
Prefer the short word to the long.
Prefer the Saxon word to the Romance.

Dr. Griffin's penchant for using the right words to gain direct access to your mind is in full display in his latest book: Good Fat, Bad Fat—How to Lower Your Cholesterol and Beat the Odds of a Heart Attack, *written with William Castelli, M.D., medical director of the Framingham Heart Study. In their book, he and Castelli help North Americans understand why they need to cut down on the saturated fat they eat—and then offer a simple way to do it, including 200 good-tasting, low-fat recipes.*

In this interview, you will find Dr. Griffin's main aim in talking, as in writing, is to take the gobbledygook out of medicine.

Thunder on the Right

When I flew to Oklahoma City to interview Francis Davis, M.D., founder and publisher of Private Practice, *these questions flitted through my mind: How does one man found, publish, and represent a journal of 200,000? What motivates a person to defend so vigorously the rights and freedoms of patients and physicians against government and other third-party payers? What, in short, makes Francis Davis tick?*

Dr. Davis graciously met me at the airport and squired me to a handsome, glass-covered new office building on the Oklahoma prairie amid similar buildings and intersecting swirls of freeways. He spent more than three hours with me, introduced me to the office staff of Private Practice, *tolerated my biases, and answered my questions.*

Dr. Davis is a courtly medical publisher of about 70. He still practices medicine about half time in Shawnee, a suburb of Oklahoma City. He is a shrewd businessman; a person active in conservative political affairs and an early supporter of Ronald Reagan; a veteran medical politician who has been an AMA delegate; a seasoned publisher of a 20-year-old influential magazine; and founder of two important conservative foundations, the Private Medical Care Foundation and Americans Against Socialized Medicine.

What makes Francis Davis tick? What makes him tick are his fundamental and abiding beliefs in the worth, truth, and integrity of American physicians and his fervent defense of their right and freedom to practice as they see fit. It is not a complicated belief system, but it drives him. Finally, he deeply believes America's 540,000 doctors, who see three million patients each day, can, by asserting themselves and persuading their patients, make a political difference in shaping America's health care future.

FRANCIS DAVIS, M.D.

REECE: *Dr. Davis, how did you get started as publisher of* Private Practice *magazine?*

DAVIS: You have to go back to 1965, although the journal was not first published until February 1969. In 1965 the president of the AMA asked some doctors, "Why don't you guys at the county medical society level go out and get us some grassroots support for what some of us believe at the parent organization in Chicago?" So we called all the major medical societies together in Los Angeles in April 1965 and discussed what they might do to influence the private sector of medicine. In June of 1965, we organized a group called Congress of County Medical Societies. About 1967, it became evident that if we were going to have any influence, we were going to have to have some means to communicate. In the winter of 1967, some of us visited several of the New York houses that publish journals. We wanted to publish a journal that would carry our group's message each month. But none of the publishing houses wanted to undertake this. So I decided I would start the journal here in Oklahoma City. I hired a journalist named Mickey Edwards, our first editor. He is now a United States congressman from this district. I hired advertising people, and we published our first journal in February 1969. That was the beginning.

REECE: *Now you've grown to a circulation of 200,000?*

DAVIS: We are a little over 200,000. That is a controlled circulation. By that, I mean we buy the list from the American Medical Association through a mailing house in Chicago. About 12,000 on the mailing list are requests. The list is made up of GPs, FPs, internists, cardiologists, and particularly those who could be prescription writers, because we support the journal by selling advertising to the pharmaceutical companies.

REECE: *And who are your major advertisers?*

DAVIS: The major advertisers

continued

vary from month to month. Most of the major drug companies place ads in *Private Practice.*

REECE: *Did you have a large circulation in the beginning?*

DAVIS: We started out with a circulation of 80,000.

REECE: *And what are your journalistic philosophies? What is your slant? I notice your front page carries the message: "The journal for physicians who want to provide unrestricted care for patients."*

DAVIS: The whole idea of the journal is to deal with socioeconomic problems that involve patients. We do whatever we can to promote and defend the private sector of medicine, which we think gives the patient the best medical care.

REECE: *Has the private practice of medicine changed markedly in the last 20 years?*

DAVIS: Too markedly. We predicted this would take place in 1965 when the American Medical Association was debating whether or not to go along with Medicare and Medicaid. Predictions were made of exactly where we would be today. There's no secret about what we're in today. Look at other countries with socialized medicine. We're following right behind them.

REECE: *How would you describe what is happening?*

DAVIS: Third-party control. It's like veterinarian medicine. Somebody else is calling the shots. You take your animals to the veterinarian, and the animal has no say, somebody else does.

REECE: *What do you see in the future?*

DAVIS: To turn this thing around, doctors need to get their patients involved and to mobilize a large grassroots organization in every congressional district in the United States. It's got to be done there. You cannot leave it to organized medicine, because they do it from the higher level, which does not really have the power to influence senators and representatives that a local grassroots organization does.

REECE: *Has this local grassroots organization been formed?*

DAVIS: We're in the process of forming it at this time. Basically, we have been a grassroots organization since we started. We have two foundations. One is called the Private Medical Care Foundation, which is set up to educate congressmen and patients about what's going on in medicine. We also have the Americans Against Socialized Medicine, through which we can try to influence congressional votes. We use those two foundations to help bring about better medicine.

"We do whatever we can to promote and defend the private sector of medicine, which we think gives the patient the best medical care."

REECE: *So you have formed two political grassroots organizations, one educational and one political. Your journal, I gather, reflects the philosophies of your two foundations. What actually goes into your magazine? What are its features?*

DAVIS: Naturally, socioeconomics is the main thing. Of course, we'll always have some economics, finances, and travel in it. At the end of each month we try to report what's happening in doctors' offices. We have a lot of doctors throughout the country who send us articles. In fact, even their associates send us articles they write. We print some of these every month.

I am not involved in actually putting the journal out. I review editorials, and I write one each month. But I am very involved in selling advertising and in special projects and with people who we think will affect the quality of medical care. With all of this, I spend 20 to 30 hours a week at least, maybe more.

REECE: *Tell me about your practice history.*

DAVIS: I did general practice and general surgery up to 10 years ago. At that time, I quit doing hospital practice. In the last 10 years, I've been doing general office, general practice, and consulting work about five mornings a week.

REECE: *I notice Harry Schwartz, a well-known journalist who used to work for the* New York Times, *writes a monthly column in* Private Practice.

DAVIS: Harry's been with us ever since he left the *New York Times* 12 years ago.

REECE: *Do you think your journal gives you some insight into the malaise that affects American medicine? Do you think things are getting worse?*

DAVIS: Yes, things are getting worse. The only encouraging thing I see is that doctors are now getting more concerned and willing to get involved. For instance, now our surveys get a 30 to 40 percent response. That is a good sign. Two years ago, we'd only get four to five percent.

REECE: *So the profession is aroused?*

DAVIS: Yes, the profession is aroused. We reported this in a recent *Private Practice.* We attended a meeting here in Oklahoma City with our United States Senator Don Nichols. About 200 doctors were there raising cain because of the letters they were getting from the third parties claiming that the service they had given was medically unnecessary. They are getting aroused.

REECE: *So the doctors are aroused primarily by Medicare sending these letters saying that they provided unnecessary care and that they won't be reimbursed?*

DAVIS: Doctors are bothered by many things. There's a suit going

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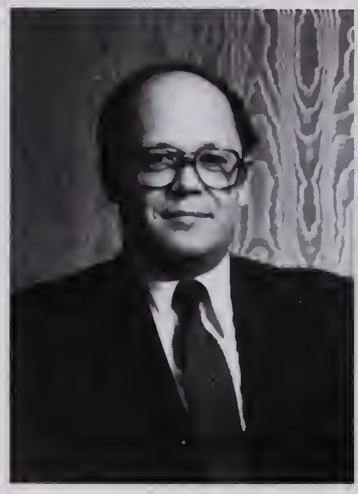

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on now in Ohio against the United States government because Health and Human Services has ruled that a doctor cannot charge a Medicare patient directly for his laboratory service; he must take assignment. That is unconstitutional, and the doctor filed suit.

REECE: *What about HMOs and other third parties?*

DAVIS: HMOs and other third parties are something doctors can fight. But the government is difficult to fight, because it makes laws and regulations. But non-government third-party payers do restrain our ability to care for our patients. For instance, if I wanted to do a hernia on a patient today, somebody who is not a doctor will get on the phone, and I will explain why I want to operate. It may take two hours before they'll give me permission to put that patient in the hospital. Physicians are tired of this kind of thing. If 200,000 doctors, who see three million patients a day, get aroused, we can turn it around. But unless we do, we can't turn it around.

REECE: *You use the figure 200,000; are those the 200,000 that subscribe to your magazine?*

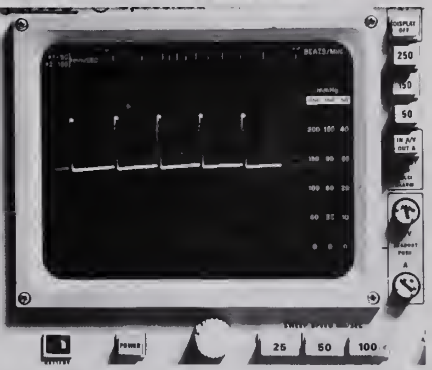
DAVIS: Yes. I'm speaking of those who get *Private Practice*. If they get aroused, I think we can turn it around, because they are the primary physicians who see the patients. They're not somebody off in another world. They are here seeing the patients.

> **"There's no secret about what we're in today. Look at other countries with socialized medicine. We're following right behind them."**

REECE: *And you base your arousal-appraisal on responses to your questionnaires, which report that physicians are aroused. Because you have over 200,000 subscribers to your magazine and you send frequent surveys, you have a powerful instrument for reflecting how doctors think. How many surveys do you do in a year and what is the return in terms of percentage?*

DAVIS: Our surveys vary. In the early 1980s, we sent out a survey and would get maybe five to eight percent. But now when we send out a survey, we'll run a test first to see if we have the right questions. And we may get as many as 40 percent back from the doctors. The survey has two purposes: to find out how the doctors feel, and to inform them about what is going on. We think this helps the doctors and us to carry the information to other doctors. The doctors are concerned. One of the things I think you find among doctors is that we all feel like we're alone in this battle. We're not alone. Nearly half of the doctors are having problems.

REECE: *On what subjects did*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you get such a large return?

DAVIS: Some of the questions would be simply: "Have you heard from Medicare telling you to refund money or you'll be fined $2,000 and kicked out of the system?" We heard from almost 40 percent of the doctors on that question. Others are: "Have you been told by Medicare that you cannot charge a patient for laboratory work done in your office, and that you have to take assignment on all laboratory tests? Have you had trouble with PROs?"

REECE: *How many responded to that question about PROs?*

DAVIS: More than 35 percent responded to the question, and about 80 percent of respondents said they have had trouble with PROs.

REECE: *What is your attitude toward the PRO, the Professional Review Organization?*

DAVIS: They should all be disbanded at once and gotten rid of. PROs are hindsight medicine, and that's not fair medicine. Any doctor on a PRO board knows that. Let me tell you, I could be on a PRO board, and I could criticize any doctor's care. There's no question in my mind—I could do it. But I still wouldn't be fair and I would know that, because hindsight is always better.

"PROs are hindsight medicine, and that's not fair medicine. Any doctor on a PRO board knows that."

For instance, a patient came to me with a laceration. She had been in an emergency room over the weekend and came to me a week later to have sutures taken out. I took the sutures out and charged $20 for it. I got a notice to refund that $20 because the call was unnecessary. That's ridiculous.

A doctor friend of mine had a patient who was dying of asthma. He gave her some phenobarbitol to relax her; it did, and she died. He was criticized for not giving her valium instead of phenobarbital, and they threatened to kick him out of the system. When he got that letter, he spent an hour and a half just explaining why he would do it again, why he had done it before, and why it had worked. The lady was dying; she knew, the family knew, and she wanted help. The doctor got a letter from the PRO saying he'd be suspended from the program. You have one appeal. So he immediately called his lawyer, who called the PRO and said, "You set up the time with your lawyer and my client. I will be there and we will discuss this." My friend immediately got a letter back saying the case had been dropped. I'm totally against PROs.

REECE: *Let's return to your journal and conclude our interview there. You've now put out this*

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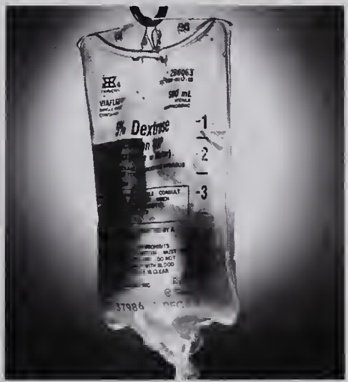

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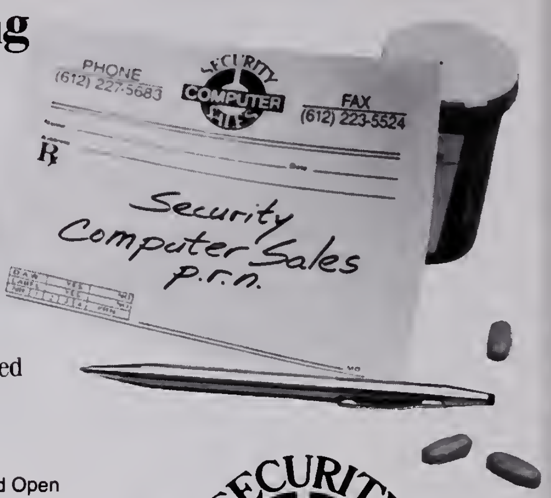

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publication for 20 years. Do you feel that your magazine has helped shape the dialogue on health care? Have you helped preserve the brand of private practice you treasure so much?

DAVIS: Yes, we've done quite a lot of good. But I'm not sure that we're doing as much as we should or could do now. For one thing, we've got to change this perception that American health care gobbles up 11 percent of the GNP, or that Americans spend $550 billion on health care. The money that goes to physicians, hospitals, and drugs is about $350 billion. At least 25 to 35 percent of this goes for just handling the money.

REECE: *So you're saying when people are comparing health care costs in the United States to those in other countries that the 11-percent figure is misleading? Are you saying that in actuality, we spend no more for "true health care" than any other country? Are you saying that other countries use a different basis for comparison?*

DAVIS: Why sure. Other countries are using what actually goes to the doctor, to the hospital, or for prescription drugs. That's not what we're doing. We're using all forms of extended care units and many other things, but it's certainly not only money that's going to hospitals, doctors, and prescription drugs.

REECE: *So the estimates of health care inflation are badly distorted and skewed on the high side?*

DAVIS: Yes. It's been done on purpose to make the American people feel that the only answer is more government care.

REECE: *Dr. Davis, the conventional wisdom is that if the current means to restrain costs, such as HMOs, PPOs, and government actions, don't rein in the inflation, we'll have national health insurance by 1992. Do you agree?*

DAVIS: Yes. I wrote to a friend today and said we've got about three years. I don't think we have too much more. The only way to prevent a national health plan would be to get the facts out. In the last three years, there is no question the income of doctors has gone down almost 25 percent. And yet the cost of medicine has gone up about 35 percent. The money is not going to doctors, and I question whether it's going to the hospitals. We know it's not going to pharmaceutical companies.

We have to get the facts out. Somebody's got to help us. There's a lot of expense being credited to medical care that should not be. Much of the expense should be credited to handling our money—all the paperwork, bureaucracy, and third parties.

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Editor's Notebook

from page 127

extensive research that went into finding out exactly what physicians would read in a publication for the elderly.

► From Dr. Davis, I learned the power of frequent reader surveys. Dr. Davis knows exactly where his readers stand on many issues, and he uses that information in writing his editorials, picking authors, and influencing congressmen and other politicians.

Discerning the Political Tea Leaves

► From Griffin and McGraw-Hill, publisher of *Senior Patient,* I gained the insight that understanding, catering to, and treating the elderly will be fundamental, not only to politicians, but publishers, too. The contribution of Dr. Griffin and his publication will be to humanize the care of the elderly—to treat aging as a life cycle that can be understood, managed, and respected.

► From Dr. Davis, I detected the feeling that the collective powers of the third parties and of government are beginning to overwhelm the capacity of private medicine to resist their incursions. I was surprised when he predicted that we will have a national health plan in three years. We shall see about national health. I note the quadriannual push for such a plan has begun, and the push was timed to coincide with President Bush's inauguration. In one week alone, I noted articles proposing such a plan in the *New England Journal of Medicine,* the *Star Tribune,* the *New York Times,* and the *Wall Street Journal.* Perhaps the time has come. I cannot control that debate. But while we wait, I can try to prepare *Minnesota Medicine* and myself to address the issues that will arise. ■

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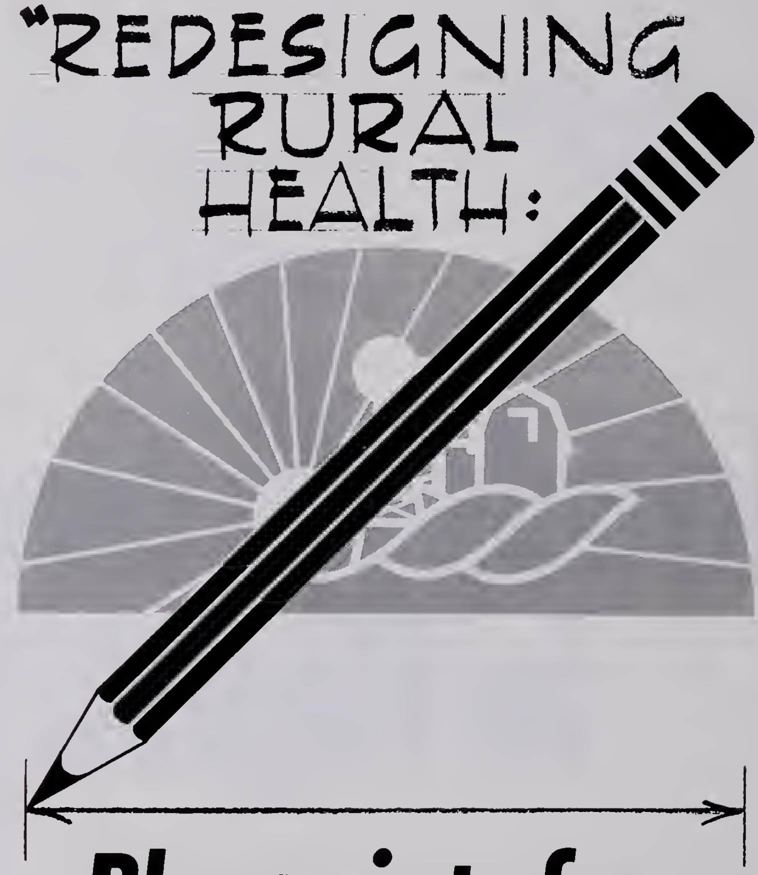

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LETTERS TO THE EDITOR

Outcome Data

I always learn quite a bit from the insightful articles and interviews you put together in *Minnesota Medicine*. The interview with Dr. Paul Ellwood in the December 1988 issue was certainly no exception. I was intrigued by his proposal that patient outcome data from large insurers and HMOs could be used to establish the efficacy and safety of treatments in a variety of diseases.

I participated in a fair amount of clinical research during my 14 years in academic medicine. Problems that came up in everyday practice seemed answerable simply by counting up the numbers in the charts. Will this person have a stroke? When will it occur? Will anticoagulation or surgery be of use? Will this person awaken from coma, and, if so, in what condition?

As a faculty member, I did several chart review studies. My office was filled with stacks of records, and I poured over laboratory printouts, doctors' and nurses' notes, discharge summaries, and in subsequent years, had the benefit of computerized medical records and the luxury of typed notes.

Eventually, I realized that the number of variables affecting an apparently simple question was quite large. They were not independent of each other and were influenced by the particular outlook of the observer recording what was happening. Crucial observations were often missing or unclear. The description of an event depended on whether one asked the physician, nurse, patient, family member, etc. Basically, without standardized data collection by similarly trained observers using specific observational techniques and agreed-upon terminology, the information was often useless. Similarly, without pre-selected specific endpoints, therapeutic trials produced confusing results.

I have a great deal of respect for Dr. Ellwood's intelligence and sophistication. But my own experiences with trying to retrospectively analyze masses of data make me wonder if he is not expecting too much from the large data banks of the Blues, Travelers, Medicare, etc. Much of this data is taken by clerks from face sheets, death certificates, and the like and is laiden with error and over-simplification. The sort of effort that it took to carry out, for example, the Framingham study, illustrates the efforts needed to conduct a wide-ranging population study.

To be done properly, "outcome management studies" should be done prospectively and will be major, time-consuming, expensive projects. Whether commercial insurers will be able and willing on the large scale to make such an investment in study design, accurate data collection, and analysis remains to be seen. If they do, I think the results will be of benefit to all of us. If, however, compromises are made and inadequate data are churned to create numbers with little meaning, then we, and certainly our patients, will be the losers.

Bruce D. Snyder, M.D.
Clinical Professor of Neurology
University of Minnesota School of Medicine, Minneapolis, Minnesota

Nominations for Diehl Award

Donald B. Swenson, M.D., '51, invites nominations for the Harold S. Diehl Award. The award is presented at the Medical Alumni Society's Annual Meeting and Luncheon on June 3, 1989.

Given in honor of the University of Minnesota Medical School's fifth dean, Harold Sheely Diehl, M.D., the award is presented to an individual who has made outstanding professional contributions throughout his or her career. The Diehl Award has been presented to over 50 people since its inception in 1962.

Qualifications for nomination:

- Preferably a graduate of the University of Minnesota Medical School;
- Not currently engaged in an academic capacity;
- Outstanding contributions to the Medical School, the University, the alumni, and the community;
- Relatively long experience in the field of medical science or a related field.

Nominations should be received by April 14, 1989, and should be sent to:

Donald B. Swenson, M.D.,
Chairperson
Harold S. Diehl Award Committee
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University of Minnesota
Minneapolis, MN 55455

Nominations should include supporting documents and references to assist the committee in its deliberations. Questions may be referred to Robert Burgett at the Minnesota Alumni Foundation. Telephone: (612) 625-1440.

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Where Medicine and Media Clash

Ralph C. Heussner, Jr., and Marla E. Salmon

Excerpts from *Warning: The Media May Be Harmful to Your Health! A Consumer's Guide to Medical News and Advertising* *(Andrews and McMeel, 1988)*

Warning: The Media May Be Harmful to Your Health! critically examines press coverage of health and medicine. In these excerpts, authors Ralph Heussner and Marla Salmon discuss the inherent conflicts between medicine and the news media. They look at how the media deal with health news and how medical information can be distorted in the process. Plus, they offer tips on how physicians, scientists, and other health professionals should react when a reporter calls.

"The world today is divided into two conceptual groups—the scientist and the nonscientist—and the communication gap between them is wide and serious."

Daniel E. Koshland, Jr., editor of *Science*

One reason for the gap is that scientists (including physicians and medical researchers) and nonscientists don't communicate directly; messages are processed through the news media. Journalists are filters through which the public receives and digests medical information. The filtering process is fraught with hazards because medicine and the press have different rules, languages, and outlooks on the world. These differences lead to misinterpretation, sensationalism, omission, oversimplification, and distortion in the dissemination of medical news.

Media Constraints and Their Impact on Medical News

Medicine is front page news. Hardly a day goes by without several medical articles appearing in major newspapers and on television news. Reporters are hungry for stories about medicine because their editors and news directors display them prominently. Editors do so because marketing consultants have found that the public craves stories about "the miracles of modern medicine."

For news consumers, stories about medical progress provide welcome relief from the daily deluge of "bad news." Medical stories often contain a dramatic element—the heroics of physicians or a dying patient's fight for life—that makes the tale even more gripping.

Franz J. Ingelfinger, the late editor of the *New England Journal of Medicine,* wrote: "Until about 1960, the lay press paid little heed to what doctors knew and what they did, and, with rare exceptions, medically related stories were quietly noted on some back page of the paper." A review of the *New York Times* index of subjects is one barometer of the inflationary index for medical news. In 1950, the newspaper carried five pages of citations for health stories; that increased to twenty-five pages in 1975.

If the public thirsts for medical news, the medical community certainly has a lot to tell them—and many physicians and scientists willing to spread the word. "Being a medical reporter today is much easier than when I started twenty years ago," says a veteran big city newspaperman. "Whereas getting doctors to talk to you back then was like pulling teeth, today my desk is covered by news releases, phone messages from PR people, and even letters from doctors and researcher who want me to write stories about their work. They want the free publicity."

The Process of Science Communication

How does a medical story find its way into the lay press? Why do some new developments receive massive attention, while others get only a scant mention in newspapers and other media—even when medical journals express widespread interest in a subject? The answers are complex. News decisions are made based on personal interests of reporters and editors, competition from other media, the promotion abilities of scientists and their sponsors, and current events

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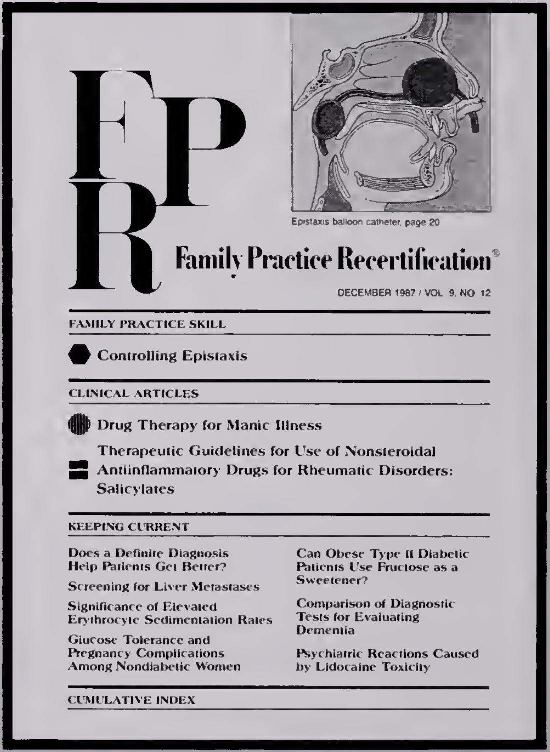

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CUMULATIVE INDEX

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of the day. (For example, a new drug for arthritis may be front page news on a slow news day, but relegated to an inside page if a passenger jet crashes or if a well-known politician is involved in a criminal act.) To understand why some medical stories attract news coverage, one must first understand the process of communication.

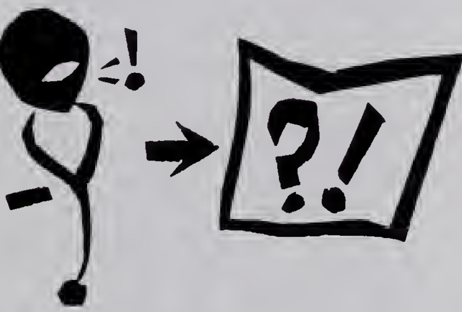
Medical stories, just like other news items in newspapers, radio, and TV, pass through a series of communication channels before they reach the news consumer. The channels are sometimes controlled by gatekeepers who know little or nothing about medicine and the significance of a new medical development.

The process begins with "informants." These are people from special interest groups, individual citizens who want the media to cover a story of concern to them, and public relations people, whose job it is to tout the work of their employer, such as hospitals, medical schools, or medical manufacturers. The informants may lure a medical writer through a news release, a press conference, or a simple phone call. A reporter may choose to develop a story because of a personal interest in the subject, in which case he or she seeks out the informant or source.

After preparing the story, the reporter must deal with a series of editors ("gatekeepers") who may require changes in both content and writing style. They include a news editor who decides where the article will be "played"—meaning where it will be positioned in the newspaper or telecast—and a copy editor who writes the headline and may even rewrite the story.

Judgments about the significance of a particular story occur at every step along this chain. If a PR person believes a story has major news appeal, a news conference may be held in order to draw maximum media attention. If a news editor thinks a story will be read or viewed by a large enough audience, it may be placed on page one of the newspaper or at the top of the television newscast.

In all media, space and time are precious commodities. Therefore, the medical story must be tightly packaged to conform to these constraints. Details about how experiments were done and the qualifying quotes of scientists may have to be deleted if the story is to make it into print. Because of deadlines, there may not be time to double-check with the reporter or his sources when a story has been rewritten on the copy desk.



"Journalists are filters through which the public receives and digests medical information. The filtering process is fraught with hazards because medicine and the press have different rules, languages, and outlooks on the world."

Radio and television are more prone to errors of omission simply because of the nature of electronic media. News stories must be brief, simple, and lively with attention-grabbing pictures to keep the audience tuned in. Rarely are stories long enough to explain a medical story in depth. Television tends to overplay stories with good pictures, and underplay other stories because of their lack of visuals.

Where Does Medical News Originate?

Where do reporters find stories about medicine?

Every year, thousands of medical studies are published by legitimate researchers in the United States and abroad, yet only a small fraction will gain the attention of the mass media, which in turn, inform the public about "medical progress." Even the most well-read medical scientist cannot keep abreast of every major development.

So how does a medical reporter choose which stories to pursue? The answer is twofold: the subject matter of newspaper articles and electronic reports may result from the personal whims of the reporter who finds a subject interesting, or the story may be manufactured through manipulation of the press by those who seek to have it tell a story for purposes of education, promotion, or profit. The sources may be hospitals looking for publicity to boost falling patient census, a patient trying to raise money for an experimental operation, a researcher lobbying for grant support, a scientist-entrepreneur who wants to interest venture capitalists, or, sometimes, the quack.

The Reporter's World

Before scrutinizing these various sources of medical news, the non-journalist should understand several constraints governing medical reporters. First, unlike other reporters who are able to observe an event firsthand—such as a fire or political rally—the medical reporter usually relies on "secondhand" information from other sources.

As professor Warren Burkett of the University of Texas at Austin explains, "Science writers are rarely present at the making of scientific news." Because very few medical writers have medical backgrounds, they cannot interpret the significance of a medical story themselves; they must rely on the ability of physicians and scientists to articulate its meaning and importance. Medical writers define their function as one of a bridge between the researcher or physician and the average citizen.

Sometimes, the press acts as a conveyor belt, simply carrying the latest "medical news" without questioning study results or examining the qualifications of the news source. Many medical reporters stand in awe of the medical profession. This implicit faith has resulted in the failure to critically analyze some medical developments. One medical journalist has described press vulnerability this way: "We are simply conduits of information. If a doctor or scientist says this is important, who am I to say it isn't?"

Good medical reporters do exist; a few have earned the respect and admiration of the scientific community. They include veteran newsmen such as Victor Cohn of the *Washington Post,* David Pearlman of the *San Francisco Chronicle,* Lewis Cope of the *Minneapolis Star & Tribune,* and Jane Brody and Walter Sullivan of the *New York Times.* But it isn't always the experienced reporter who covers the story. Smaller news outlets, which can't afford a medical reporter specialist, have an even harder time presenting an accurate account of the news. It is a gift to be able to walk gracefully through both the world of medicine and the domain of journalism. As the executive editor of the *Detroit News* once remarked, "A good medical reporter takes years to develop." In the meantime, the public must suffer.

"Unlike information that goes into a medical journal, there is no peer review or editing of a scientist who talks directly to the press."

The other news selection factor that sometimes distorts the news is the professional reward system of the news media. Reporters succeed in a larger news organization by producing stories that are featured prominently. Medical reporters must compete with other reporters for scarce space or air time. A medical story with drama and impact is more likely to get better play.

The Pavlovian Press Conference

The press conference is a popular format for the release of medical information. It works like this: an institution or hospital has some "news" that, in the eyes of either the institution or the scientist, is important and deserves widespread dissemination. Rather than simply sending out a news release in the hope the press will use the story, a press conference is called to bring the journalists onto home turf. The press conference may pressure a reticent reporter into covering a story because of the competition. It often results in "mob journalism" behavior where the mere presence of many media people gives an event news significance.

A press conference also pressures the reporter to get the story on the evening news or into the next day's newspaper, thus precluding efforts to substantiate the findings that are announced. Because not all press conferences coincide with publication of a study, the comments may be based on opinion or speculation of the researchers, rather than study results or hard data. Unlike information that goes into a medical journal, there is no peer review or editing of a scientist who talks directly to the press.

Most researchers will encounter medical reporters only occasionally during their careers. Therefore, they are at an immediate disadvantage when facing TV cameras and the barrage of questions at the news conference. Basic researchers will be pressed to explain and possibly inflate their work to the clinical setting, e.g., questions like "Doctor, how will your discovery lead to better treatment for patients?" It is human nature to be cooperative and to answer questions. A curious question and an innocent response about the eventual effects of a basic discovery can raise the hopes of the patient far beyond what the scientists had intended.

Rx for Medical People

In 1906, Dr. William Osler, a professor of medicine at England's Oxford University and a pioneer in the study of blood disorders, wrote: "In the life of every physician there comes the temptation to toy with the Delilah of the press—daily and otherwise. There are times when she may be courted with satisfaction but beware! Sooner or later she is sure to play the harlot and has left many a man short of his strength, viz., and confidence of his professional brethren."

Despite Osler's warning, meetings between health practitioners and the lay press often are unavoidable. For a scientist who publishes in a medical journal, refusal to deal with the press means running the risk of the reporter misinterpreting the work and exaggerating its conclusions. Nonacademic physicians also can be drawn into the media milieu unexpectedly if their patient is a prominent public individual, or if the family faces serious financial problems that force a public appeal for help. So how should a physician, scientist, or other health professional react when a reporter calls?

1. Request an in-person interview with the reporter. A study by Phillip J. Tichenor of the University of Minnesota School of Journalism and colleagues found that stories resulting from telephone interviews are regarded as less accurate by sources than those resulting from face-to-face questioning.

2. Obviously, choose your words carefully. If you have time, prepare a written statement using language that is comprehensible to a lay person, though still scientifically accurate. Follow the journalist's style of the "inverted pyramid," meaning that the most important thoughts are placed at the top of the article. Some scientists have difficulty talking in "layman's language," in the belief that it somehow diminishes the quality of their work.

3. Request the reporter read his story to you prior to its publication. If this is your desire, make it clear at the start of the interview. Some reporters may resist doing so. Therefore, make the request early on during the questioning. If the reporter is vehemently opposed, and threatens to write the story anyway, then ask the reporter to read back some of his or her notes. If the reporter has discombobulated your meaning, then you should either end the interview or again demand that the reporter read back the story before publication. If you cannot reach an agreement, contact the reporter's editor or news director.

4. Remember what you consider important and interesting may not be what whets the taste of the media and their audience. Because the press faces a space crunch, forcing the condensation and oversimplification of material, your life's work may be summarized in a few hundred words in print and a few short sentences on television. Be prepared for shock when a minor point in your work becomes the major thrust of the news article. To avert this result, ask the reporter before he leaves your office or lab to tell you what he thinks will be the focus of his story.

5. When talking to a reporter—even in a small town where the newspaper reaches only a few thousand people—remember that you may be reaching people throughout the country, and possibly all over the world. The press is interwoven through wire services (the AP, UPI, Reuters, the N.Y. Times Service, and others). An interesting story in one community may "go out on the wires" to reach media throughout the world. The wire services get much of their news from subscribers, small radio stations, and newspapers in the hinterland of America. If you embellish claims about your small clinical study in rural Ortonville, but use words that make it sound significant, the press will accept that as gospel truth and send the message out to others, often without checking back with the scientist to confirm the accuracy of the original story. Once a story is disseminated through the wire services "it takes on a life of its own, disseminating with a velocity that makes it virtually impossible to retrieve and correct mistakes," writes Jeffrey Goldstein, chairman of the mass media committee for the International Society for Research on Aggression.

6. Inquire about the reporter's credentials. Ask if he or she is a member of a professional association—the National Association of Science Writers or the American Medical Writers Association. Although membership, of course, will not guarantee accuracy, it is an indication that the reporter strives to be a professional, and takes some pride in his or her craft. If time permits, ask the reporter to submit writing samples before the interview.

7. Provide the reporter with plenty of background information, but don't overload the journalist with too many scientific articles. Supplement scientific journal papers with well-written pieces that have impressed you from popular magazines. Review articles are especially helpful to put new work into perspective.

8. Television creates special problems because of its brevity and reliance on pictures. Your story will last between thirty seconds to two minutes. To make sure your ideas are transmitted accurately, ask for a rehearsal before the lights go on. Some reporters will do this automatically. It gives you an opportunity to select the right words.

9. Be prepared for repercussions. If you're talking about any disease—even if it's basic research—many people will interpret the message, despite qualifiers, as a breakthrough. And they will call you wanting to participate in your study. Plan for the consumer barrage. If you work at a hospital, advise the switchboard of those expected inquiries. If you are unable to deal with patients' calls, be sure that someone—a social worker, nurse, or patient relations staffer—is available to answer questions. In the event of an avalanche of inquiries, which is inevitable if the research draws national coverage, prepare a form letter that corrects misunderstandings and offers guidance to patients who seek treatment.

10. If your patient decides to go public, suggest that the reporter's questions about treatment and medications be deferred to you. Encourage the patient and the family to discuss only emotional, financial, and personal aspects of the case.

11. If the news report was in error, act quickly to correct it. First, notify the reporter and suggest that a correction be published as soon as possible (ask that it be read to you before publication). If you and the reporter cannot come to an agreement, then you have the opportunity to write a letter-to-the-editor. Some television stations allow viewer response to their work, but it is much more difficult to gain that forum, and they are usually aired at odd hours.

Reprinted from Warning: The Media May Be Harmful to Your Health! A Consumer's Guide to Medical News and Advertising *by Ralph C. Heussner, Jr., and Marla E. Salmon, with permission © 1988.*

Ralph Heussner is a medical writer in the Department of Laboratory Medicine and Pathology and a study coordinator for the AIDS Clinical Trials Unit at the University of Minnesota Hospital & Clinic, Minneapolis. He was a newspaper reporter and editor for eight years and worked for five years as director of the Office of Health Science Communications at the University of Minnesota.

Marla Salmon is a professor in the School of Public Health at the University of North Carolina, Chapel Hill, where she studies the social forces, including the media, that shape public health policy.

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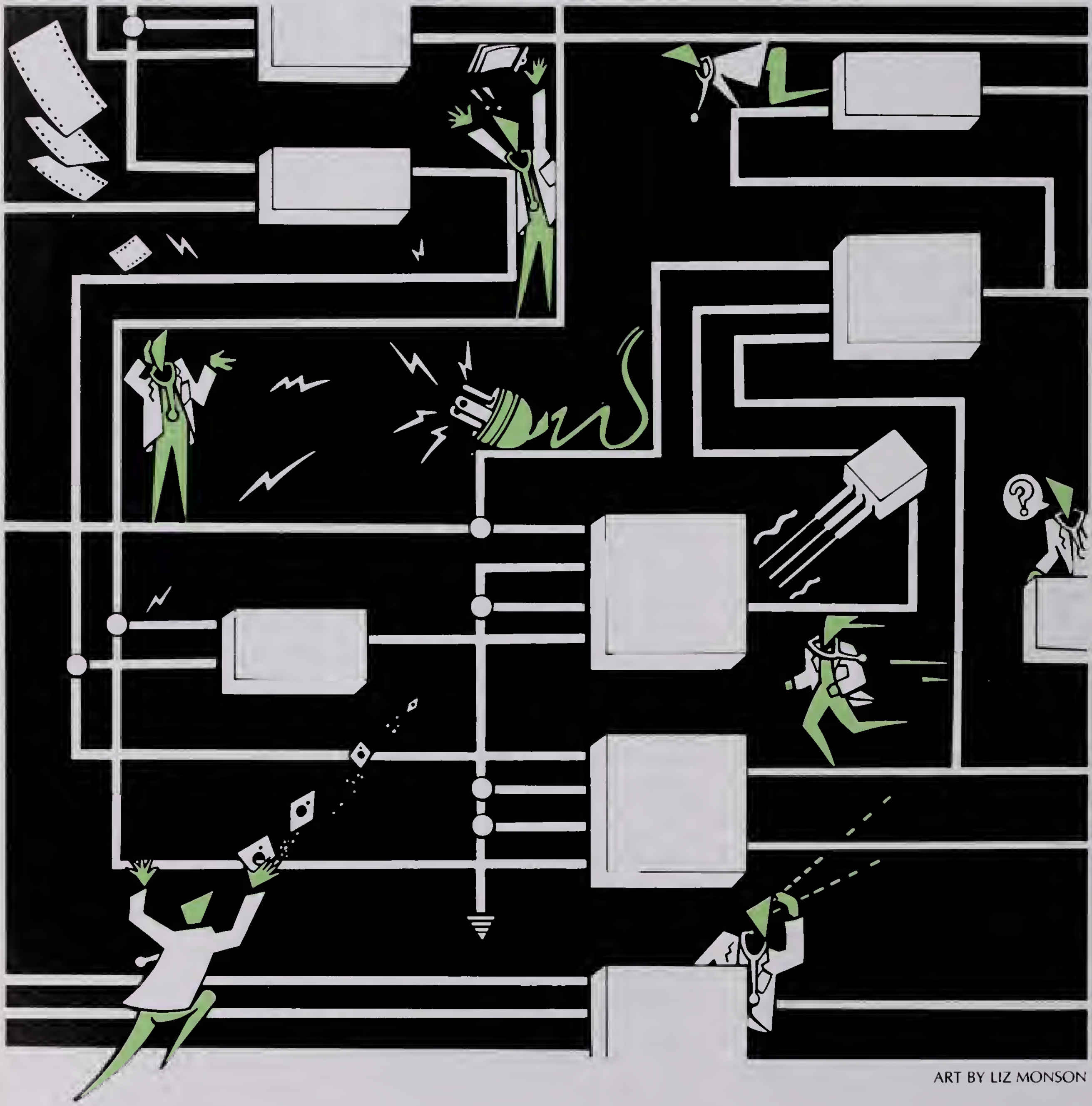


ART BY LIZ MONSON

ARE COMPUTERS

physician-friendly?

Computer lovers have courted physicians' favor for a quarter century, yet the regular use of computers in daily practice is still but a futurist's dream

Where's the rub?

If nothing else, the idea of computers supporting physicians in their daily practice has long fascinated science writers. For over a decade, they have been busily writing articles that foreshadow the day—always just around the corner—when the computer will become an indispensible physician's tool, a symbol as closely tied to the practice of medicine as the stethoscope.

"If the trend continues, behind every good doctor a busily humming computer will be grinding out masses of data and helping to make diagnoses," proclaimed a 1980 article in *Science Digest.*

In the same article, a physician bragged about the advances in computer science, saying "We already have at our command the technology to apply to our medical practices that everybody will have in 1989." Two years later, a *Time* magazine article reported that "knowledgeable physicians predict that consultation by diagnostic computers will soon be widespread."

These and many other articles—for the most part accurately reflecting current (at the time of publication) research and expert opinion—have captivated a large audience. That audience, however, apparently has included very few physicians. 1989 has arrived, and the computers are busily humming behind about as many physicians as still make regular housecalls.

Although computers are widely used in medical practices for accounting purposes, other regular uses by physicians remain a distant prospect. A 1987 survey indicated that less than five percent of Minnesota physicians put their fingers to a computer keyboard for *any* kind of use. Even though they were supplied with access to computers and software and offered training, less than 10 percent of the physicians at the 24 clinics participating in the University of Minnesota's Rural Physician Associate Program actually used the computers.

Why haven't all—or at least some—of these predictions about the role of the computer in medicine come true?

During the past 25 years, advances in technology and computer programming have given birth to an amazing array of computer applications in medicine. Some of the earliest research focused on medical records and new ways to utilize the computer both to maintain those records and to manipulate the information they contained to make medical practice more efficient. Early successes—albeit small—opened the researchers' eyes to the seemingly endless possibilities, and they became more and more creative and bold.

Today, computer support systems are making inroads into almost all areas of medicine. Numerous data bases and bibliographic systems offer ready access to the broad spectrum of medical literature. A computer program named PUFF helps analyze the results of laboratory tests for pulmonary dysfunction and "suggests" what might be wrong with the patient. Another program called ONCOCIN, developed to help manage care of certain cancer patients, studies test results and patient data and then proposes a complex treatment program, including lab tests and changes in chemotherapy. These and other so-called "expert systems" have been and are being designed to function as expert consultants that can help with

Chuck Benda

difficult diagnoses. These systems cover everything from general internal medicine to rheumatology to psychiatric evaluation. A variety of "reminder" systems have been created to help physicians adhere to optimum care procedures and to manage patient care by generating reminders for periodic health screening tests.

In spite of these many advances, the computer goes unused by most physicians. Can it be that there just isn't any real need or place in the world of medicine for all these high-tech shenanigans?

During the same period of time that the computer jockeys have been developing their medical applications for computers, medical practice has changed drastically. At the heart of that change has been an explosion of medical knowledge. Each week some 75,000 new articles are published in the realm of biomedical literature. In other words, each time the sun sets, more new medical knowledge has found its way into print than any single physician could assimilate in a year.

"Over the past 20 to 30 years, we've seen increasing subspecialization in medicine," says John Sandness, M.D., who also has a master's degree in computer applications, is a research associate with the Rural Physician Associate Program, and supervises the program's computer-related components. "As the knowledge base has grown, we've divided it up into more and more parts. And we've realized that it is beyond the scope of any human being to become an expert in all of these different areas."

The danger of this continual subdivision of medical practice, according to Sandness, is that it is a process whereby "everyone knows more and more about less and less, until finally they know everything about nothing."

In this environment then, it would seem that the computer—with its innate ability to store and retrieve billions of pieces of information; its ability to analyze and manipulate that information—is ideally suited to become a tool to help physicians manage this increasingly unwieldy art called medicine.

But the fact remains that almost all of the systems the computer jockeys have whipped up to support medical practice go largely unused by the bulk of physicians. Why? Perhaps the best way to find answers as to why computers aren't used is to look at where they are used.

Kamal Sahgal, M.D., and his three partners are among the relatively small number of Minnesota physicians who regularly use computers as a part of daily practice (for anything other than accounting purposes). The partners practice in the western suburbs of Minneapolis, with offices in Wayzata and Excelsior. They have begun using a software system called "Charts" to manage their record-keeping.

All of the usual information kept on a patient's record—medications, problems, lab test results—are maintained on the computer. The computerized charts allow support staff to handle many problems that might otherwise take up the physician's time—such as refilling certain prescriptions. And, as Sahgal was quick to point out, the computerized charts are easy to access.

"We have a modem, and if I need a patient's chart while I'm at home, I can just pull them up on the computer," Sahgal said. "Or if I'm at the hospital, or our other office."

Although he is sold on the value of his computer record-keeping system, Sahgal doesn't feel the same about expert systems.

"I've tried them, but they take way too much time," he said. "Why spend all that time at the computer when I can make a decision so quickly, or just talk to one of my partners?"

Sandness, who has developed familiarity with the expert system DXplain through his work with the Rural Physician Associate Program, has a mixed opinion of its usefulness.

DXplain is an expert system for general internal medicine that is offered on-line through AMA/NET, the American Medical Association's nationwide medical data base. In response to a list of symptoms and other data the physician enters into the computer, DXplain will come up with a list of possible diagnoses.

"Computers are too stupid to understand what you really want unless you spell it out exactly the way the computer wants it."

DXplain has been available to the third-year medical students who participate in the Rural Physician Associate Program.

"It can be useful as far as identifying a diagnosis you haven't thought of," Sandness said, "but if you're looking at it to conclusively give you a diagnosis, all it really does is open up a can of worms. It could be any one of these 40 things."

DXplain proved more valuable as a learning tool than an actual diagnostic aid, according to Sandness. He often asks students to examine in retrospect some of their difficult cases through DXplain, but he has found that they seldom turn to it of their own volition. On the other hand, they often do use online data base systems for searches of the medical literature.

"Although DXplain is fairly user-friendly and doesn't require much training in order to use," Sandness says, "it's a little too involved to use very often. I might use it in a limited number of cases if I were in clinical practice."

The obstacles that hinder acceptance of the medical applications of computers are many and varied. Some physicians are intimidated by computers, others don't know how to type, and still others believe computers have no place in a physician's medical practice. But the number one reason more physicians don't use computer support, such as expert systems, is a lack of time.

"We surveyed all of the physicians involved in our program," Sandness said. "Sixty-five percent said they just didn't have the time."

Accessing the simplest of expert systems can take about 15 minutes per case, according to John Cesnik, M.D. Cesnik, assistant professor of family practice and community health at the University of Minnesota and director of the Creekside Clinic Practice Residency Training Program, has evaluated several expert systems.

"It also takes a significant amount of time to understand all of the ramifications of these systems and develop some facility with them," Cesnik said. "And some of the systems require you to go through a tedious sequential list of data."

Cesnik also pointed out that much of the difficulty arises because of the problems encountered through the interface, or the process of trying to communicate what you know to the computer in a way the computer will understand it.

"Computers are too stupid to understand what you really want unless you spell it out exactly the way the computer wants it," he says. "DXplain has a lexicon of 4,600 words. It won't accept anything outside that."

Cesnik ran 50 medical charts through four different expert systems, and in many cases, the computer just "tilted," he said. "It did not compute."

The expense of many of these systems is also a weighty consideration. While some services—such as on-line data base systems—cost less than $100 per month, other systems cost thousands and even tens-of-thousands of dollars. With all of these obstacles, perhaps physicians shouldn't even concern themselves with computers—at least in the short run.

"Obviously the golden age of computing is still around the corner, even though it was predicted 25 years ago," says Donald Connelly, M.D. Connelly is an associate professor of laboratory medicine and pathology at the University of Minnesota and assistant director of the medical informatics program there. ("Medical informatics" is simply the heading under which academia has lumped medical applications of computers.)

In spite of the shortcomings of current computer systems, however, there are good reasons to take advantage of what they have to offer, according to Connelly.

"Studies have shown that reminder systems have actually changed physician practices so that they were checking certain things more often than they did before, or so they were taking more preventive measures with their patients," Connelly says. "These systems allow physicians to do their jobs better."

It is that goal—allowing physicians to do their jobs better—that has made Cesnik a strong supporter of computers.

"There are very real reasons why we should take advantage of what computers have to offer," Cesnik said. "We could improve medical care in this state by having the latest in medical knowledge immediately available to every physician.

"Why look at our mistakes in retrospect, when we could have 'real-time' quality assurance?" Cesnik asks.

His notion of real-time quality assurance includes computer systems containing medical information that has been "filtered through experts" so that even a general practitioner has access to the latest expert information in all specialties.

"If you have a 23-year-old woman who had come in for her first evaluation for headaches," Cesnik hypothesized, "your computer could give you access to the latest information from a group of experts in neurology. It might say that you should ask at least this minimum set of 50 questions, and if any of the answers are positive, you should branch over into this other area and ask more questions."

As Cesnik envisions the system working, support staff could administer the questions before the exam began, providing the physician with a broader base of information from which to begin and giving the physician more time to focus on the exam itself. Thus, the system allows even the generalist to put the latest in specialized knowledge to work at the time it can do the most good.

"Such systems could save millions of dollars if they could effectively intervene and more rapidly bring a physician to the proper diagnosis," says Cesnik.

To fully realize the benefits of the computer, a number of things must happen. First, physicians must feel comfortable with computers and not threatened by them. Changes in medical education are already beginning to make inroads in this area. Medical students at the University of Minnesota are getting more and more exposure to computers and their medical applications.

According to Linda Ellis, chair of

the information subcommittee of the medical school educational policy committee, the medical school is placing an increased emphasis on the use of computers. First- and second-year medical students have been provided with an electronic mail system that gives them access to local, national, and international computer bulletin boards. This program will eventually include all medical school students.

The students also have access to MinneMedline, a system on the Health Sciences computer that uses tapes from the National Library of Medicine, Ellis said. This system is increasing students' familiarity with computers and preparing them for the changes to come.

"Within the next few years, the national boards will be taken on computer," Ellis added. "All of a sudden you will have medical students who will demand to get experience on a computer."

Familiarizing physicians with computers is only one step along the way, however. Many of the bugs in the current systems must be worked out. Both Cesnik and Connelly agree that expert systems must become more attuned to a physician's thought process, allowing the physician to communicate with the computer in a natural, intuitive manner, rather than a tedious, step-by-step, proscribed routine. The whole process must be speeded up so that a physician can access the computer as easily as he or she could consult with a partner, or a specialist.

"Why look at our mistakes in retrospect, when we could have 'real-time' quality assurance?"

Sandness sees a day, perhaps five or ten years down the road, when a physician will be able to input data by talking into a microphone.

"I'm not sure where we're headed," Connelly said. "I don't see the physician sitting at a terminal all day, managing patients across the country. But I could see the computer coming into daily use, even if it's just to review charts."

Cesnik's vision for the future is more involved. He is frustrated by the fact that the computer's full potential is not being tapped by the medical community. Although he recognizes strong economic barriers, Cesnik envisions the day when that potential will be reached through fully integrated systems that incorporate accounting, record-keeping, reminder systems, and diagnostic support in one smooth-running system that unobtrusively meets the modern physician's support needs.

"I think the computer hardware and software is there for it to change at any time that it seems economically reasonable for that change to take place," Cesnik says.

It won't become economically feasible until third-party payers, medical liability companies, and other institutions interested in improving medical care recognize the value of such systems, according to Cesnik. Research funding is needed. And perhaps incentives in the form of reduced liability premiums to medical groups that use such systems.

Though it all seems rather fantastic, and is more of a wish from Cesnik than a prediction, the prospect of such a system is very alluring to Cesnik and others like him. Such a powerful tool would help physicians provide patients with the absolute best medical care available, while freeing the physician to devote more of his or her energies to the human side of medicine: listening to patients, talking to them, trying to understand their concerns and their fears as they confront the bewilderment of birth, illness and injury, aging, and, inevitably, death. And although this powerful tool offers the latest in 20th century technology, the reasons for using it are as old and noble as the art of medicine.

Chuck Benda is a free-lance writer living in Hampton, Minnesota.

Where to Begin

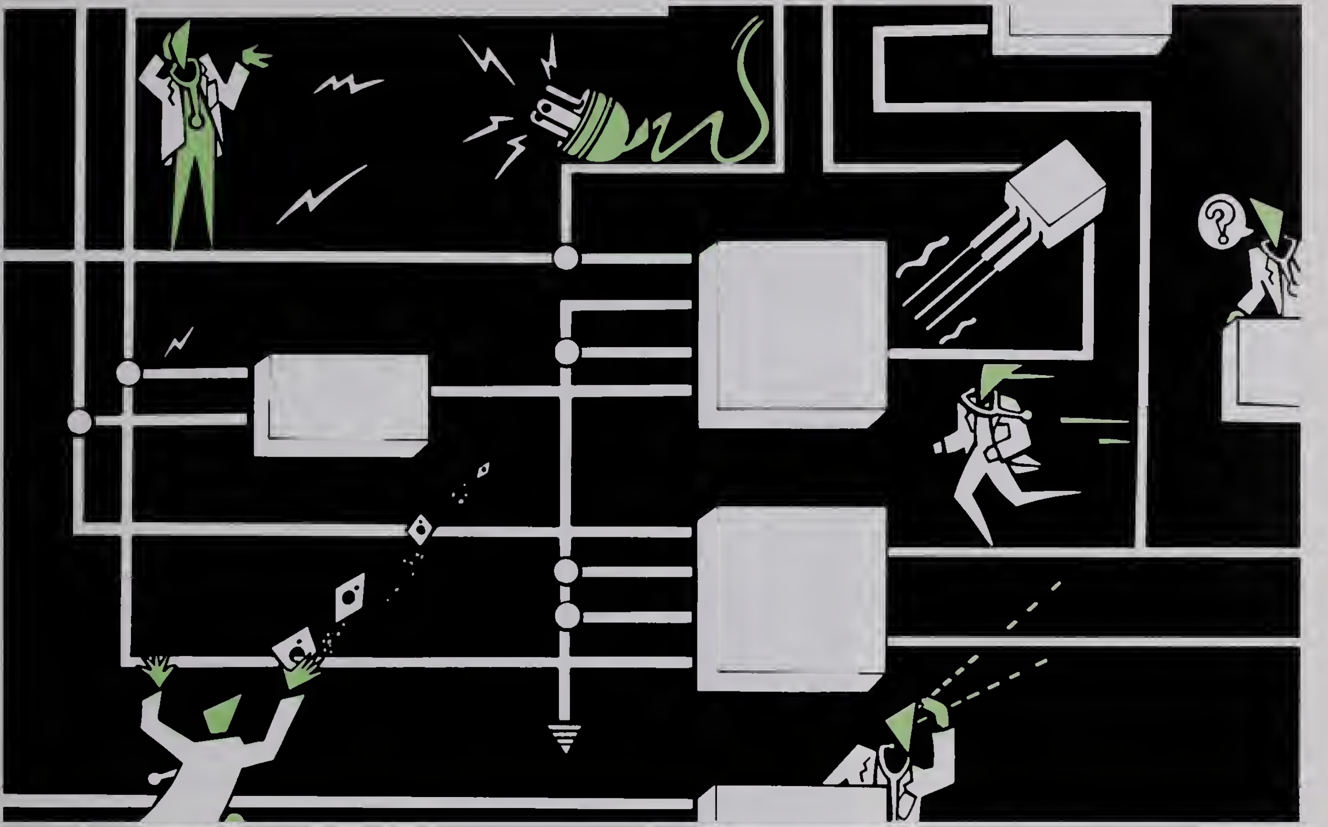
Even if you've got a terminal case of computer-phobia, there's no time like the present to step into the future. The burgeoning number and variety of systems may seem incredibly intimidating, but it's easy enough to test the waters without plunging in over your head.

A good place to start, according to Donald Connelly, M.D., assistant director of medical informatics at the University of Minnesota, is by reading the article, "Computer Programming to Support Clinical Decision-Making," by Edward H. Shortliffe, *JAMA,* 1987, Vol 258: 61-66. The article is written for the uninitiated.

From there, you might want to progress to the book, *Clinical Information Systems,* by Bruce I. Blum; Springer-Verlag, New York, 1986. The first few chapters are designed to bring the novice up to speed on computers in general, and the book covers a wide range of medical applications for computers.

The University of Minnesota offers an ongoing seminar in health informatics. John Cesnik, M.D., also indicated that he and Linda Ellis, both at the University, would be happy to organize a Continuing Medical Education class if enough people were interested. For more information, contact Linda Ellis' office at the University of Minnesota Medical School, (612) 625-9122.

Finally, if you really get gung ho about computers, there's already a magazine just for you: *Physicians and Computers,* P & C Publications, Inc., 2333 Waukegan Road, Suite 5280, Bannockburn, IL, 60015.



MDs Prefer Books, Despite Hike in On-line Data

Though access to on-line computerized data bases has become almost universal in American medicine, an overwhelming majority of office-based physicians, students, residents, and scientists most often rely on books and journals for specific medical information, says a recent Louis Harris survey.

And though they believe that computerized retrieval technology offers the best hope of dealing with the "information explosion," physicians and other users of medical information are having a hard time letting go of their dog-eared journals.

The survey, prepared as background for a daylong symposium on the future of information systems for the medical sciences, held by the New York Academy of Medicine April 25, 1988, showed that despite a growing demand for library space and a proliferation of journals and other information sources, most scientific and clinical faculty, medical students, residents, and office-based physicians still feel that all materials of potential scholarly interest and clinical relevance should be kept in libraries regardless of how rarely they are used.

That's some order, considering, as one speaker said, there are more than 75,000 articles published in the biomedical literature each week.

Deans and librarians, however, are less acquisitive than physician-users of information. Some 88 percent of deans and 100 percent of hospital chief librarians surveyed felt it was time to re-evaluate the "publish or perish" ethic and to focus on quality instead of quantity in publications. They concurred that the main measure of a library should not be the number of books and journals in its collection, but its ability to access and retrieve information.

The study was based on interviews with representative cross-sections of 98 medical school faculty members in the basic sciences and 102 third- and fourth-year medical students, 104 medical residents, 201 office-based patient-care physicians, 50 deans of medical schools, 50 heads of medical school libraries, and 50 chief librarians in affiliate hospital libraries.

The desire to keep information close at hand reflects the view of the library as "storehouse rather than as

Milan Korcok

deliverer of information," as Robert M. Braude, Ph.D., Frances and John Loeb Librarian and assistant dean for information resources, Cornell University Medical College, told the symposium. Yet the survey also revealed support for the idea that institutions should share collections and data to cut costs and increase efficiency.

Such an apparently contradictory view reflects the dilemma faced by many library users, said Dr. Braude. Intellectually, they know it is not possible to collect in one library all the information of potential use. But emotionally, they are "reluctant to give up their historical relationship with the library as a repository of all the information they will ever need or want."

Compromises must be made. Close to 45 percent of respondents said they would be "very willing" to limit the number of archival books if that improves efficiency and reduces costs. But only some 26 percent to 39 percent of office-based physicians would accept having bound journals and scholarly publications available only in computerized form.

The least popular option in the survey was restricting access to library on-line data bases to information professionals trained in efficient search strategies. Only 22 percent of clinical faculty and 21 percent of office-based physicians said they would go along with that.

The survey also found that office-based physicians as a group appeared to be the least well informed.

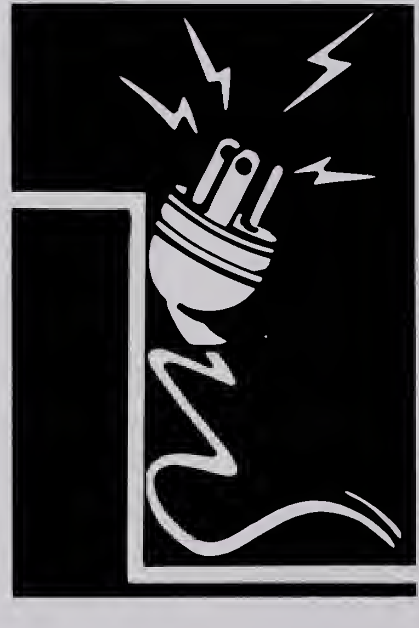
Of all the groups surveyed, medical students claim to have read the most books related to their field in the past year—a median of about 15. Office-based physicians report reading a median of four books related to their field in the last year, but they claim to read more journals than medical students or residents—about four regularly.

Symposium speaker R. Brian Haynes, M.D., Ph.D., professor of clinical epidemiology and medicine, Health Information Research Unit at McMaster University in Hamilton, Ontario, said that physicians in other surveys reported journal reading was their preferred form of continuing medical education and that they regularly spent three to four hours a week on it.

"This may seem like a large commitment to continuing education in general and to journal reading in particular," said Dr. Haynes. Of course it is possible, he added wryly, that physicians' estimates of their reading habits may be closer to what they would like to do than to what they actually do.

Though office-based physicians say they are persistent journal readers, they prefer to read the journals and monographs in their own collections. The survey found that only 43 percent of residents, 33 percent of medical students, and 21 percent of office-based physicians often referred to journals in a library.

The survey also revealed that readers thought browsing through a wide variety of journals was one of the best means of keeping abreast of medical literature.



But with the proliferation of new publications and, more importantly, the "scattering" of specialty information over a broader range of journals, browsing becomes a difficult task, said symposium speaker Edward J. Huth, M.D., editor of the Philadelphia-based *Annals of Internal Medicine.*

Most researchers and clinicians, he said, should be able to keep aware of new developments in their field by scanning four to six journals a month, if the information were concentrated in small clusters of journals. But with the proliferation of special-interest publications there seems to be more "scattering" than "clustering," he said.

"A majority of each user group feels that fast, reliable access to information can mean the difference between life and death."

Despite the continuing reliance on the printed word close at hand, the need for ultimately accepting computerized searching and learning techniques is clear to most physicians, students, faculty, and medical librarians.

All user groups surveyed agreed that "the information explosion in the medical sciences has made computerized information systems technology an essential component in a university, medical school, or hospital."

A majority of each user group (ranging from 77 percent of office-based physicians to 56 percent of basic science faculty) feels that fast, reliable access to information can mean the difference between life and death.

Yet there is hesitancy among most medical information users to accept the "fast, reliable access to information" that the computer represents. For example, 55 percent of medical students, 46 percent of residents, 44 percent of basic science faculty, and 43 percent of clinical faculty who have on-line access via their library rarely or never use it to track down specific information. Even larger percentages say they never use their own personal computer for that purpose.

The survey found that office-based physicians are the least favored with computer technology:

26 percent say they have no access to computerized data, and 37 percent of those who do haven't used them in the past 12 months.

These findings are "alarming," said the study's authors, "given the proliferation of information in the medical profession. For those office-based physicians who do not know that they can get information from their hospital library, this lack of data base access and knowledge may be most serious, for it may well be that it is these very professionals who are the ones most in need of information."

But even many of those who use data bases don't actually put their own hands to the keyboard. According to the survey, most of those who have used an on-line computerized data base in the last 12 months say they generally have a librarian or information specialist do their data base searches for them. In fact, 93 percent of office-based physicians have someone else do it.

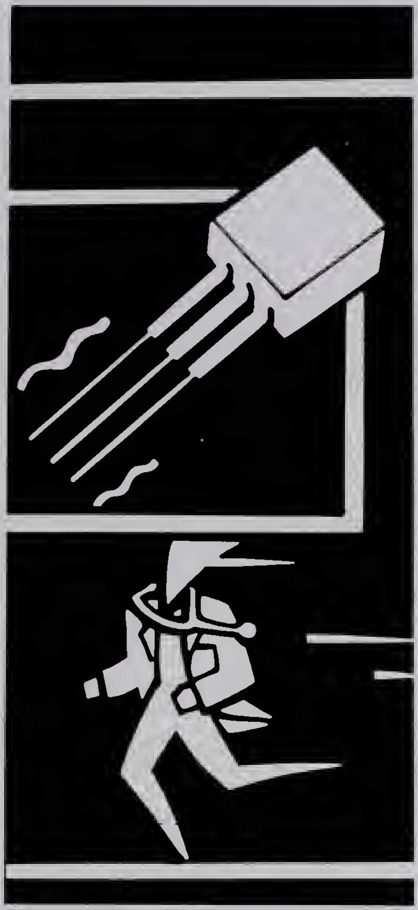
"Without a doubt," says the study, "users are more comfortable with using printed books and journals than they are [with] on-line computerized data bases or microfilm or microfiche."

The survey notes that it's not surprising that 50 percent of office-based MDs prefer card catalogues.

What this says, claims the survey, is that "office-based physicians are out of touch with the advantages of on-line data base technology. . . . Their use of this technology is glaringly limited."

"In 10 years absolutely no medical student or professional will be without access to a personal computer."

Cornell's Dr. Braude believes that before physicians universally accept and use computer technologies to get their information, they will have to feel as comfortable with the computer as they now do with journals and books. A major advance toward that end, he says, could be made in undergraduate medical education by emphasizing information technology and concentrating on teaching medical students information-seeking skills rather than an ever-growing body of facts.



Epidemiologist Haynes agrees. Medical schools, he says, have long recognized the inadequacy of didactic "empty vessel" teaching, but they have been slow to invest in research into teaching techniques for lifelong, self-directed learning. They also have not given adequate priority to teaching skills in data acquisition and management.

The personal computer will ultimately move into the central ranks of the medical profession, says Dr. Braude, and in 10 years "absolutely no medical student or professional will be without access to a personal computer." The computer, he says, will allow physicians, students, scientists, and faculty access to a new era of information management in which the medical library assumes new purpose.

In a discussion paper prepared for the symposium, Dr. Braude said the "library of the 21st century" "will be an academic information management library. . . . It will have fully developed library-to-library and library-to-user communications and will be linked to the organizational information resource base.

"All institutional staff and students will have their own computers and be connected through an institution-wide telecommunications system. All of the library's records and services will be available on-line, as will other information resources linked to the system.

"The library will be smaller, consisting of current books, journals, and nonprint media, but most of the collection will be on videodisk or other types of electronic storage.

"The library will be an information center that generates, stores, and integrates information systems. And the library will serve as a management center for a variety of computer-based files, using technology to augment human information processing."

That's the future. But first, someone must bring the MD to the keyboard.

The New York Academy of Medicine symposium was funded by an educational grant from the Josiah Macy Jr. Foundation. The Louis Harris survey was funded by the Rockefeller Foundation, the Josiah Macy Jr. Foundation, the W. K. Kellogg Foundation, the Commonwealth Fund, the McGraw-Hill Book Co., the New England Journal of Medicine, *BRS Saunders, and University Microfilms International.*

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BRIEF SUMMARY

CONTRAINDICATIONS

There are no known contraindications to the use of sucralfate.

PRECAUTIONS

Duodenal ulcer is a chronic, recurrent disease. While short-term treatment with sucralfate can result in complete healing of the ulcer, a successful course of treatment with sucralfate should not be expected to alter the post-healing frequency or severity of duodenal ulceration.

Drug Interactions: Animal studies have shown that simultaneous administration of CARAFATE (sucralfate) with tetracycline, phenytoin, digoxin, or cimetidine will result in a statistically significant reduction in the bioavailability of these agents. The bioavailability of these agents may be restored simply by separating the administration of these agents from that of CARAFATE by two hours. This interaction appears to be nonsystemic in origin, presumably resulting from these agents being bound by CARAFATE in the gastrointestinal tract. The clinical significance of these animal studies is yet to be defined. However, because of the potential of CARAFATE to alter the absorption of some drugs from the gastrointestinal tract, the separate administration of CARAFATE from that of other agents should be considered when alterations in bioavailability are felt to be critical for concomitantly administered drugs.

Carcinogenesis, Mutagenesis, Impairment of Fertility: Chronic oral toxicity studies of 24 months' duration were conducted in mice and rats at doses up to 1 gm/kg (12 times the human dose). There was no evidence of drug-related tumorigenicity. A reproduction study in rats at doses up to 38 times the human dose did not reveal any indication of fertility impairment. Mutagenicity studies were not conducted.

Pregnancy: Teratogenic effects. Pregnancy Category B. Teratogenicity studies have been performed in mice, rats, and rabbits at doses up to 50 times the human dose and have revealed no evidence of harm to the fetus due to sucralfate. There are, however, no adequate and well-controlled studies in pregnant women. Because animal reproduction studies are not always predictive of human response, this drug should be used during pregnancy only if clearly needed.

Nursing Mothers: It is not known whether this drug is excreted in human milk. Because many drugs are excreted in human milk, caution should be exercised when sucralfate is administered to a nursing woman.

Pediatric Use: Safety and effectiveness in children have not been established.

ADVERSE REACTIONS

Adverse reactions to sucralfate in clinical trials were minor and only rarely led to discontinuation of the drug. In studies involving over 2,500 patients treated with sucralfate, adverse effects were reported in 121 (4.7%).

Constipation was the most frequent complaint (2.2%). Other adverse effects, reported in no more than one of every 350 patients, were diarrhea, nausea, gastric discomfort, indigestion, dry mouth, rash, pruritus, back pain, dizziness, sleepiness, and vertigo.

OVERDOSAGE

There is no experience in humans with overdosage. Acute oral toxicity studies in animals, however, using doses up to 12 gm/kg body weight, could not find a lethal dose. Risks associated with overdosage should, therefore, be minimal.

DOSAGE AND ADMINISTRATION

The recommended adult oral dosage for duodenal ulcer is 1 gm four times a day on an empty stomach.

Antacids may be prescribed as needed for relief of pain but should not be taken within one-half hour before or after sucralfate.

While healing with sucralfate may occur during the first week or two, treatment should be continued for 4 to 8 weeks unless healing has been demonstrated by x-ray or endoscopic examination.

HOW SUPPLIED

CARAFATE (sucralfate) 1-gm tablets are supplied in bottles of 100 (NDC 0088-1712-47) and in Unit Dose Identification Paks of 100 (NDC 0088-1712-49). Light pink scored oblong tablets are embossed with CARAFATE on one side and 1712 bracketed by C's on the other. Issued 1/87

Reference:

1. Eliakim R, Ophir M, Rachmilewitz D: *J Clin Gastroenterol* 1987;9(4):395-399.

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Primary CNS Lymphoma Presenting as Multiple Sclerosis

A Case Study

Gail P. Bender, M.D., and Randall T. Schapiro, M.D.

A case is described of a patient who presented with multifocal neurologic disease compatible with a diagnosis of multiple sclerosis. The predominance of cognitive abnormality was unusual in this case. It was not until the patient's rapid clinical deterioration and radiographic findings mandated surgical intervention that a disseminated tumor involving the leptomeninges was identified and a diagnosis of primary CNS lymphoma was made. Postmortem examination confirmed the diagnosis of primary CNS lymphoma, and the classical pathologic findings of multiple sclerosis were also seen. This report illustrates interesting parallels in the clinical differentiation of these two diseases.

Primary central nervous system (CNS) lymphoma is a rare disease. Its incidence has been estimated at 1.6% of the extranodal non-Hodgkin's lymphoma cases.[1] Disagreement regarding the cell of origin of this malignancy has confused the pathologic terminology. These primary brain tumors have been labeled as reticulum cell sarcomas and microgliomas.[2] Thus, it has been only recently that these tumors have been grouped and their clinical pathologic features reviewed in an extensive series.[3] Helle and associates[3] pointed out that patients with primary CNS lymphoma may progress rapidly downhill, or the disease may remit for extensive periods. By its nature, primary CNS lymphoma presents as a multifocal neurologic process.

Multiple sclerosis (MS) is not a rare neurologic disease. It is one of the more common chronic disabling diseases of young adults. MS has several clinical presentations, including benign sensory, benign relapsing-remitting, chronic relapsing-progressive, chronic progressive, and acute progressive.[4] It is usual for MS to have long remissions of symptoms. Like CNS lymphoma, MS also presents as a multifocal neurologic process.

It should not come as a surprise that primary CNS lymphoma and multiple sclerosis are difficult to differentiate clinically. Both may occur in young adults, remit and exacerbate, and have scattered neurologic findings limited to the CNS.

In this case report, we describe a patient who presented with multifocal neurologic disease and a chronic course characterized by remissions and exacerbations, which we felt to be consistent with the diagnosis of multiple sclerosis. However, after eight years, when her clinical deterioration and radiographic findings mandated operative intervention, the diagnosis of primary CNS lymphoma was made. At autopsy, the diagnosis of primary CNS lymphoma was confirmed, and the classical pathologic findings of multiple sclerosis were also seen. To our knowledge, this is the first reported case of both of these confusing diseases seen in the same individual.

Case Report

A 20-year-old woman presented on June 13, 1977, for evaluation of ataxia, vertigo, and diplopia, which progressed over two weeks. The patient had no history of neurologic disease.

Neurologic examination revealed no optic atrophy but did show gross nystagmus laterally in both directions with the eyes tending to deviate to the right. The left corneal reflex was diminished. A left peripheral seventh-nerve palsy was present. There was a drift of the left upper extremity downward. The deep tendon reflexes showed a right-side predominance without pathologic toe signs.

Diagnostic studies included a normal CT scan of the head, normal complete blood count and erythrocyte sedimentation rate. Spinal fluid analysis showed normal pressure, protein of 29 mg%, and a gamma globulin of 8%. No cells or oligoclonal bands were seen.

Treatment with high-dose dexamethasone (Decadron 64 mg, with taper over seven days)[4] was instituted. The symptoms cleared dramatically, leaving an internuclear ophthalmoplegia on left lateral gaze, bilateral gross nystagmus, and a slight reflex asymmetry.

In November 1978, only gross nystagmus remained, but the patient was seen after complaining of urinary urgency. This was felt to be consistent with the working diagnosis of multiple sclerosis. No sign of infection was present (negative UA/UC).

In November 1983, five years after the onset of symptoms, the patient was evaluated for throbbing, intermittent vascular headaches. These were accompanied by nausea, photophobia, lightheadedness, and visual blurring. Treatment with propranolol (Inderal) brought relief. The neurologic examination was unchanged. However, over the next few weeks, forgetfulness, diplopia, and ataxia became more prominent. Examination showed some minimal mental confusion, gross nystagmus, no funduscopic changes, dyssynergia of the upper extremities, and ataxia of the lower extremities. A repeat CT scan showed a contrast-enhancing midline mass lesion extending from the wall of the right lateral ventricle compressing the region of the third ventricle (Figure 1a, b).

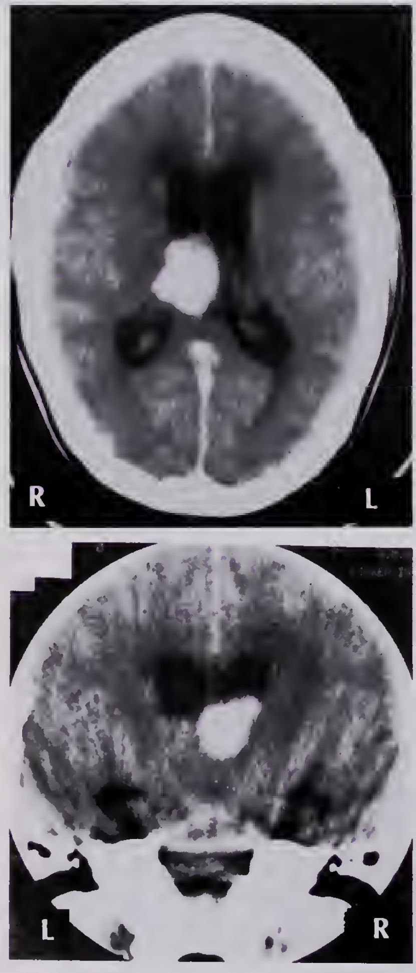

FIGURE 1 a,b - CT scan showing contrast-enhancing midline mass lesion extending from wall of right lateral ventricle compressing region of third ventricle. (a. sagittal view; b. coronal view).

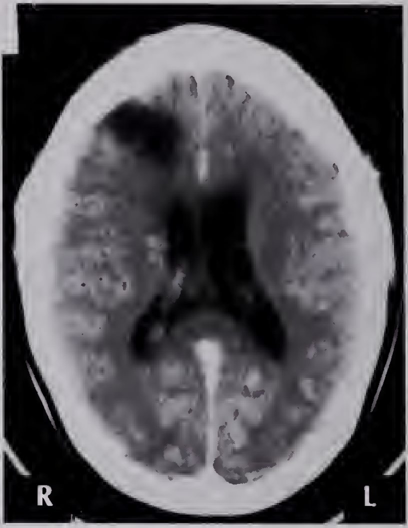

FIGURE 2 - CT scan showing almost complete resolution of previous large abnormality, leaving small area of periventricular demyelination adjacent to third ventricle.

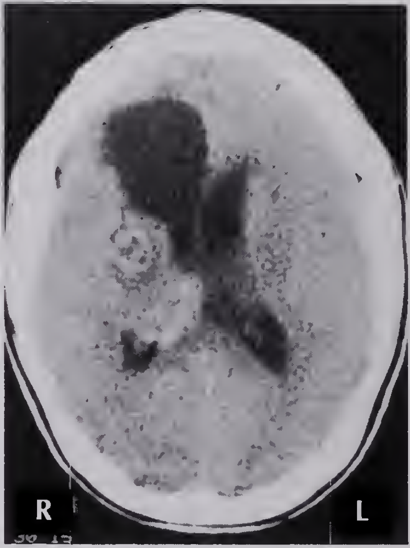

FIGURE 3 - CT scan showing postoperative right frontal porencephalic cyst with two hyperdense right basal ganglia lesions.

A cerebral angiogram did not disclose any abnormalities, specifically no large number of blood vessels. Surgical biopsy of the region showed only a benign inflammatory reactive process. Dexamethasone (4 mg/6h) was administered. The patient's confusion cleared, and the neurologic examination reverted to the previous baseline. In January 1984, a repeat CT scan showed almost complete resolution of her previous large mass lesion, leaving only a small area of periventricular decreased lucency adjacent to the third ventricle (Figure 2).

Two months later, the patient was no longer taking steroids and was feeling well.

One year later, in February 1985, three and a half months into a pregnancy, she again experienced lightheadedness, dizziness, and ataxia. Fatigue, memory dysfunction, and impaired eye movement were also present. Treatment with ACTH (40 units IV/day) was instituted. An unenhanced CT scan revealed a postoperative right frontal porencephalic cyst with two hyperdense right basal ganglia lesions (Figure 3). Substantial improvement occurred with administration of ACTH, and the ataxia and confusion cleared as well.

One month later, she had a major motor seizure, and headaches and ataxia recurred. Stupor set in. Her eyes were deviated to the left. Doll's eyes were absent, and the fundi were normal. Bilateral upgoing toe signs were seen. A CT scan was unchanged from the abnormal scan taken one month earlier. EEG was diffusely abnormal. Phenytoin (Dilantin) and ACTH were instituted. Despite conservative management, the fetus aborted during the hospital stay. The cause of the intrauterine fetal death was an abnormally formed placenta. Postpartum dexamethasone (4 mg/6h) was administered.

Results of MRI and CT scanning were consistent with diffuse demyelination in the brainstem and periventricularly (Figures 4, 5). The high-intensity signal extended inferiorly to involve the brainstem and superior vermian region. Spinal fluid revealed a gamma globulin of 10% without oligoclonal banding. No cells were noted; protein was 35 mg%. The patient was in danger of herniation from hydrocephalus secondary to encroachment of the fourth ventricle. Because of increasing lethargy, a shunt was placed. Cytology from the ventricular fluid showed large malignant undifferentiated cells consistent with CNS lymphoma. Pathologic

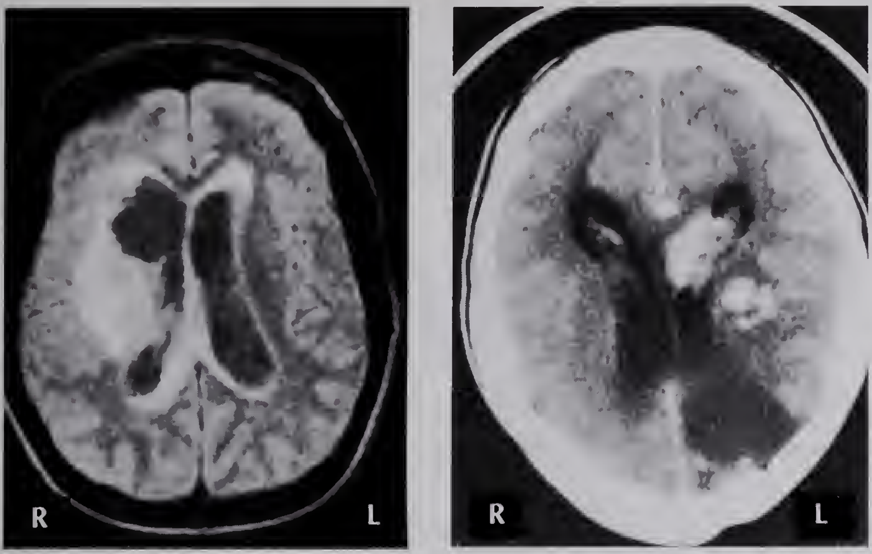

FIGURE 4, 5 - MRI and CT scans showing diffuse demyelination in brainstem and periventricularly.

review and immunotyping at the University of Minnesota, Minneapolis, confirmed B-cell lymphoma.

Systemic studies showed no spread beyond the CNS. Intrathecal methotrexate and radiation therapy were begun with dramatic improvement.

The patient was discharged from the hospital shortly thereafter. A follow-up CT scan showed dramatic improvement, with resolution of the multifocal lesions (Figure 6). An MRI scan showed only small hypodense areas in the periventricular region, right more than left. The patient was started on combination chemotherapy with cyclophosphamide (Cytoxan), prednisone, cytosine arabinoside, methotrexate, bleomycin, and leucovorin.

Increasing ataxia, memory problems, and brainstem signs recurred. Repeat CSF analyses showed persistent malignant cells. The patient died at home, eight years after the onset of neurologic symptoms.

Postmortem examination revealed widespread infiltration of the leptomeninges by a highly cellular tumor in all sections of the brain. The tumor cells were small- to medium-sized with occasional large cells. The tumor cells had large, round, or oval nuclei, a fine chromatin pattern, and prominent nucleoli. Numerous mitoses were seen. Near the wall of the ventricle was a periventricular area of degeneration in which large-bodied astrocytosis was found. Some macrophages were seen, particularly around blood vessels. A similar lesion was noted in the medulla. Additional sections of the cerebrum, medulla, and cerebellum were stained with Luxol fast blue-PAS, and Bielschowsky silver stain. A discrete area of demyelination with a fibrous gliosis was found in the corpus callosum abutting the wall of the ventricle. A second section that includes the angle of the lateral ventricle contained a similar area of degeneration. There was an area of demyelination and fibrous gliosis involving the dorsolateral surface of the medulla extending into the tegmentum for some distance. In most of the lesions there was a marked loss of axons.

The findings in the brain at postmortem examination showed widespread involvement of the leptomeninges by lymphoma with extension into perivascular spaces and parenchyma. The lesions described in a periventricular location and in the cerebellar white matter were fairly sharply circumscribed and gliotic. These changes are consistent with multiple sclerosis plaques.

Discussion

This patient presented with multifocal neurologic deficits compatible with a diagnosis of multiple sclerosis. Despite recent laboratory advances, the diagnosis of MS remains a clinical one. The absence of other explanations for the patient's CNS symptoms was an essential element in the diagnosis of MS.

Given the lack of diagnostic studies supporting another explanation in this case, a presumptive diagnosis of MS was made. The initial course of the disease with remissions and exacerbations was quite consistent with that disease process. While cognitive abnormalities in multiple sclerosis are being increasingly recognized, the predominance of these symptoms in this case brought it to further scrutiny.

Although a B-cell lymphoma was demonstrated, the length of time between the initial episode and subsequent exacerbations was unusual. The midline mass seen on CT in November 1983 was atypical for MS and precipitated the biopsy. This CT scan finding, however, as well as the marked enhancement seen in periventricular locations on the MRI and CT scans of April 1985 (Figures 4, 5), are also characteristic of lymphomatous involve-

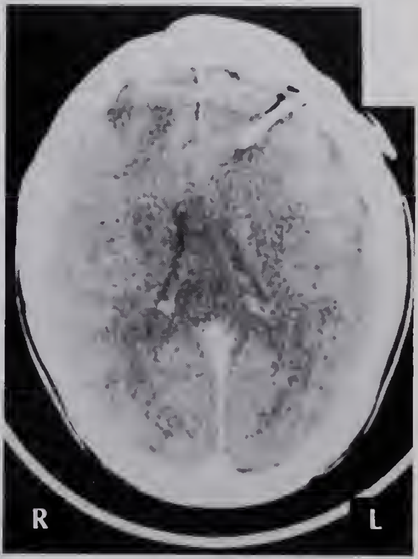

FIGURE 6 - CT scan showing dramatic improvement, with resolution of multifocal lesions.

ment.[5,6,7] Both diseases could conceivably respond favorably to steroids.

Primary CNS lymphoma is rare, but its presence together with multiple sclerosis has not been previously reported. CNS lymphoma is associated with immunosuppression, but this patient was never immunosuppressed for any length of time.[8,9] Each steroid burst was given for only seven to 10 days. Infectious agents such as HIV and the Epstein-Barr virus have been related to CNS lymphoma, but neither has been linked to multiple sclerosis.[10,11]

Acknowledgment

The authors wish to thank Angeline Mastri, M.D., associate professor of neurology and pathology, University of Minnesota Medical School, Minneapolis, for her help in reviewing the postmortem slides.

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References

1. Freeman C, Berg JW, Cutler SJ: Occurrence and prognosis of extranodal lymphomas. Cancer 29(9):252-260, 1972.
2. Schaumburg H, Plank CR, Adams RB: The reticulum sarcoma—microglioma group of brain tumours. Brain 95:199-212, 1972.
3. Helle TL, Britt RH, Colby TV: Primary lymphoma of the central nervous system: clinicopathologic study of experiences at Standord. J Neurosurg 60 (1):94-103, 1984.
4. Schapiro RT, Van den Noort S, Scheinberg L: The current management of multiple sclerosis. Ann NY Acad Sciences 436:425-434, 1984.
5. Spillane JA, Kendall BE, Moseley IF: Cerebral lymphoma: clinical radiological correlation. J Neurol Neurosurg Psychiatry 45:199-208, 1982.
6. Dubois TJ, Martinex AJ, Myerowitz RL, Rosenbaum AE: Subependymal and leptomeningeal spread of systemic malignant lymphoma demonstrated by cranial computed tomography. J Comput Assist Tomogr 2:218-221, 1978.
7. Dawson DM, Rumbaugh CL, Kido D: Early CT scan findings in lymphoma and progressive multifocal leukoencephalopathy. (Abstr) Neurology (NY) 32:Suppl: A153, 1982.
8. Louie A, Schwartz RS: Immunodeficiency in the pathogenesis of lymphoma and leukemia. Semin Hematol 15(2):117-138, 1978.
9. Schneck FA, Penn I: De-novo brain tumours in renal transplant recipients. Lancet 1(707):983-986, 1971.
10. Snider WD, Simpson DM, Aronyx KE, Nielsen SL: Primary lymphoma of the nervous system associated with acquired immunodeficiency syndrome. (Letter) N Engl J Med 308(1):45, 1983.
11. Hochberg FH, Miller G, Schooney RV, Lirssh MS, Feorino P: CNS lymphoma related to Epstein-Barr virus. N Engl J Med 309(13):745-748, 1983.

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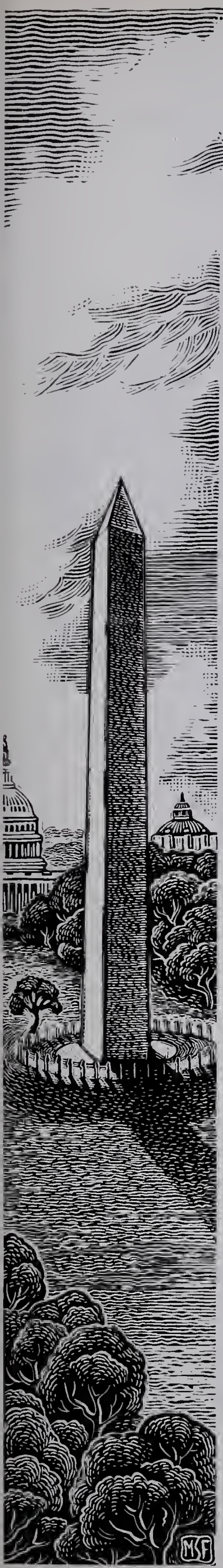

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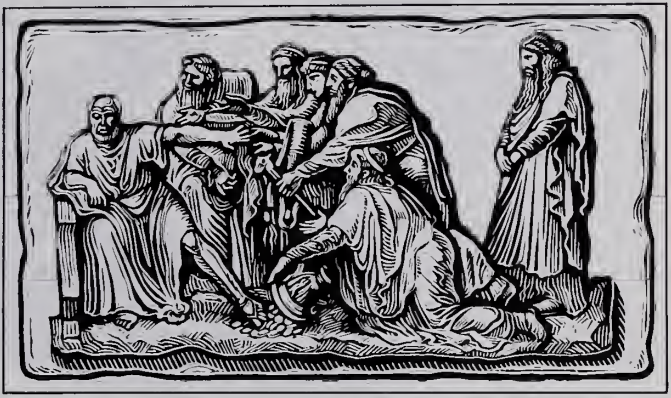

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- Positive direct Coombs' tests have been reported during treatment with cephalosporins
- Ceclor should be administered with caution in the presence of markedly impaired renal function. Although dosage adjustments in moderate to severe renal impairment are usually not required, careful clinical observation and laboratory studies should be made
- Broad-spectrum antibiotics should be prescribed with caution in individuals with a history of gastrointestinal disease, particularly colitis
- Safety and effectiveness have not been determined in pregnancy, lactation, and infants less than one month old Ceclor penetrates mother's milk Exercise caution in prescribing for these patients

Adverse Reactions: (percentage of patients)

Therapy-related adverse reactions are uncommon. Those reported include
- Gastrointestinal (mostly diarrhea): 2.5%
- Symptoms of pseudomembranous colitis may appear either during or after antibiotic treatment.
- Hypersensitivity reactions (including morbilliform eruptions, pruritus, urticaria, and serum-sickness-like reactions that have included erythema multiforme [rarely, Stevens-Johnson syndrome] and toxic epidermal necrolysis or the above skin manifestations accompanied by arthritis/arthralgia, and frequently, fever). 1.5%, usually subside within a few days after cessation of therapy Serum-sickness-like reactions have been reported more frequently in children than in adults and have usually occurred during or following a second course of therapy with Ceclor. No serious sequelae have been reported Antihistamines and corticosteroids appear to enhance resolution of the syndrome
- Cases of anaphylaxis have been reported, half of which have occurred in patients with a history of penicillin allergy
- As with some penicillins and some other cephalosporins, transient hepatitis and cholestatic jaundice have been reported rarely
- Rarely, reversible hyperactivity, nervousness, insomnia, confusion, hypertonia, dizziness, and somnolence have been reported
- Other eosinophilia, 2%, genital pruritus or vaginitis, less than 1%, and, rarely, thrombocytopenia

Abnormalities in laboratory results of uncertain etiology
- Slight elevations in hepatic enzymes
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LAWRENCE M. POSTON, M.D.

Practice What You Preach!

Patient advocacy and the doctor-patient relationship. We hear and read about those two ideals with great frequency these days. No discussion of today's health care delivery environment is complete without mention of the need for doctors to defend these ideals as we try to cope with the systems and the forces that affect our practice.

It seems appropriate to review what it is that we are to defend and preserve, lest the reality be lost in the rhetoric.

The dictionary defines an advocate as one who pleads or defends the cause of another. Patient advocacy, then, requires that we try to achieve what is best for our patients in the provision of health care. That, of course, presupposes that we *know* what is best for them. That knowledge, in turn, requires that we come to know and understand, as best we can, each patient. To do so obligates us to develop the doctor-patient relationship.

That relationship, from which we hope to gain an understanding and an agreement regarding the patient's best interest, must be based on an ongoing dialogue between us and those we care for. To properly involve our patients in this dialogue, we must earn their trust, deserve their respect, and urge their cooperation. Through such dialogue, we can accumulate information that includes important details about a patient's family and interpersonal relationships, behavioral strengths and weaknesses, economic factors, individual concerns, fears, and expectations. As our fund of such knowledge increases, so does the likelihood that we can determine what is best for our patient.

> **"To properly involve our patients in this dialogue, we must earn their trust, deserve their respect, and urge their cooperation."**

To properly carry on such a dialogue, we must devote our time—time to ask questions and listen to the answers, time to explain and discuss our findings and diagnostic studies, time to involve family when appropriate, and time to address concerns and fears.

There may be a temptation to delegate to others the responsibility for this dialogue or to rely on questionnaires and check lists to gather data in order to conserve our own time for "more important activities." Such adjuncts to history-taking may serve a useful purpose in the development of our medical records, but they cannot properly replace our personal involvement in the dialogue with our patients, and, ultimately, we must take the time to assimilate the information obtained by those methods in order to adequately evaluate our patients' needs.

It is no easy task to develop this doctor-patient relationship, but it is fundamental to the practice of medicine. It is this unique collaboration that should be the hallmark of our profession and can distinguish us from all other providers of service. It is essential that all physicians develop this relationship whenever possible and that those of us in primary care do so with our continuing patients.

Diagnosis and treatment, by themselves, will not suffice for total medical care. We must provide our service based on patients' individual needs. We can know those needs only through the dialogue involved in the doctor-patient relationship, and only with that comprehensive knowledge can we be the patient's advocate.

If we will defend these ideals, let us deliver them. ■

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References:

1. A. Morales et al., New England Journal of Medicine: 1221. November 12, 1981.
2. Goodman, Gilman — The Pharmacological basis of Therapeutics 6th ed., p. 176-188. McMillan December Rev. 1/85.
3. Weekly Urological Clinical letter, 27:2, July 4, 1983.
4. A. Morales et al., The Journal of Urology 128: 45-47, 1982.

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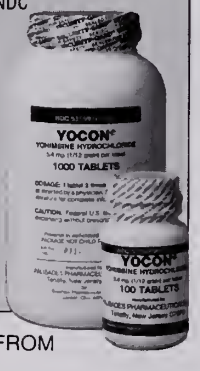

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The Minnesota Board of Medical Examiners

A Report of the Minnesota Medical Association Committee on Ethics and Medical-Legal Affairs

A call or letter from the Board of Medical Examiners (BME) may be a painful and embarrassing experience, one that seems to cast doubt on the integrity and competence of the physician. In some cases, embarrassment prevents physicians from seeking answers to important questions, like "How does the BME operate?" "How serious is my situation?" "How should I respond?"

The MMA Committee on Ethics and Medical-Legal Affairs prepared the following report to help physicians answer some of these questions. The report describes the duties of the BME, its grounds for disciplinary action, and the procedures it follows upon receipt of a complaint.

Historically, medical boards were established at the request of physicians to help them preserve the integrity and high quality of their own profession. Since the majority of board members are physicians, the BME is, in effect, a peer review organization whose authority to impose sanctions derives from the state. The BME licenses about 14,500 physicians, 9,000 of whom live in Minnesota.

Notably, the vast majority of complaints received by the board do not result in any sort of discipline. About 10 percent of complaints result in some form of board action. In fiscal year 1988, the board received 687 complaints, 622 of which fell under its jurisdiction; 227 cases were put on the agenda of the board's Disciplinary Committee for review. The BME issued 60 orders, some for disciplinary action and some for reinstatement. That year, the board suspended five physicians, revoked seven licenses, and restricted the licenses of 36 others. The most common complaints dealt with competency, prescribing practices, ethics, unprofessional conduct, improper sexual behavior toward a patient, and chemical dependency.

Most often, the BME recommends dismissal of a complaint early in the review process. In some cases, the complaint does not meet one of the 21 grounds of complaint listed in the Medical Practice Act. In others, the complaint is dismissed following an informal questioning of the physician by phone or letter.

In other instances, however, the physician will receive from the board an official Notice of Conference, which explains the allegations against the physician and invites the physician to a conference with the board's Discipline Committee to discuss the allegations.

If you are contacted by the Board of Medical Examiners, expect to feel chagrined, but it is important to maintain your composure and keep these tips in mind:

► You must respond to a request from the Board of Medical Examiners. Failure to cooperate with the board is, in itself, grounds for action.

► If you are asked to submit a written response, the letter should be written over your own name and should deal specifically with the issues. You might find it helpful to discuss the response with your clinic administrator or a colleague, but, in most cases, you may not need an attorney. An exception would be if sexual misconduct were alleged or if you knew that the patient had also filed a malpractice claim.

► If you are to meet with an investigator, have your records available and in order. It may be helpful to contact an attorney at this point. The investigator will expect you to go over the records with him or her and discuss the issues. Then the investigator will write a report and send it to the committee member who is reviewing the case.

► If you receive an official Notice of Conference, you should bring records and documents. Go over the notice, and give the allegations careful thought. Prepare your response in advance. Discuss it with a colleague. Picture the situation in your mind, mentally rehearse, and be prepared. The MMA recommends that you retain an attorney to represent you before the Discipline Committee. Preferably, your attorney should have experience with representing people in front of licensing boards.

The BME: Duties and Responsibilities

The Minnesota Board of Medical Examiners is an independent agency of state government responsible for the licensure, regulation, and discipline of physicians. It is also responsible for the registration of physical therapists, physician assistants, lay midwives, and physician professional corporations.

Appointments to the 11-member Board of Medical Examiners are made by the governor. Recommendations for the seven M.D. members of the BME may come from the Minnesota Medical Association; recommendations for the one D.O. member may come from the state osteopathic medical association. Of the three public members of the BME, one must represent a mental health and consumer advocacy organization. The governor may select members from a list of recommended persons or may choose other qualified candidates.

Members serve four-year terms. The number of terms is not limited; however, a member may serve no more than two terms consecutively.

Laws Enforced by the BME

Minnesota Statutes Chapter 147, the Medical Practice Act, governs the licensure and discipline of Minnesota physicians. This law sets standards for physician licensure by examination or endorsement, for licensure of osteopaths, and for licensure of foreign medical school graduates. It also sets out the penalties for the unlawful practice of medicine and for practicing without a license and includes specific grounds for disciplinary actions and reporting obligations.

The BME also administers the Minnesota statute under which physical therapists are registered. This statute includes standards for the registration, examination, and discipline of physical therapists. Minnesota Department of Health rules on physician assistant qualification and registration are administered by the board as well.

Grounds for Discipline

The Medical Practice Act includes a listing of grounds for disciplinary action. Following is a summary of the grounds upon which the BME may refuse to grant a license or may impose disciplinary action upon a physician. For the specific language of the Medical Practice Act, refer to Minnesota Statutes Chapter 147.

A. Failure to demonstrate the qualifications or satisfy the requirements for a license.

B. Obtaining a license by fraud or cheating, or attempting to subvert the licensing examination process.

C. Conviction, during the previous five years, of a felony reasonably related to the practice of medicine or osteopathy.

D. Revocation, suspension, restriction, limitation, or other disciplinary action against the physician's medical license in another state or jurisdiction, failure to report that charges regarding the person's license have been brought in another state or jurisdiction, or having been refused a license by any other state or jurisdiction.

E. Advertising that is false or misleading, that violates any rule of the board, or that claims, without substantiation, the positive cure of any disease, or the professional superiority to or greater skill than that possessed by another physician.

F. Violating a rule promulgated by the board or an order of the board, violating a state or federal law that relates to the practice of medicine or in part regulates the practice of medicine, or violating a state or federal narcotics or controlled-substance law.

G. Engaging in any unethical conduct; engaging in conduct likely to deceive, defraud, or harm the public, or demonstrating a willful or careless disregard for the health, welfare, or safety of a patient; or engaging in medical practice that is professionally incompetent, in that it may create unnecessary danger to any patient's life, health, or safety. Proof of actual injury need not be established in any of these cases.

H. Failure to supervise a physician's assistant or a physician under any agreement with the board.

I. Aiding or abetting an unlicensed person in the practice of medicine. It is not a violation of this paragraph for a physician to employ, supervise, or delegate functions to a qualified person who may or may not be required to obtain a license or registration to provide health services, if that person is practicing within the scope of his or her license, registration, or delegated authority.

J. Adjudication as mentally incompetent, mentally ill, mentally retarded, or chemically dependent; or adjudication as dangerous to the public, or as a person who has a psychopathic personality by a court of competent jurisdiction, within or without this state. Such adjudication shall automatically suspend a license.

K. Engaging in unprofessional conduct, including any departure from or failure to conform to the minimal standards of acceptable and prevailing medical practice. The board need not show actual patient injury.

L. Inability to practice medicine with reasonable skill and safety by reason of illness, drunkenness, use of drugs, narcotics, chemicals, or any other type of material, or as a result of any mental or physical condition, including deterioration through the aging process or loss of motor skills.

M. Revealing a privileged communication from or relating to a patient, except when otherwise required or permitted by law.

N. Failure by a doctor of osteopathy to identify the school of healing in the professional use of the doctor's name by one of the following terms: osteopathic physician and surgeon, doctor of osteopathy, or D.O.

O. Improper management of medical records, including failure to maintain adequate medical records, failure to comply with a patient's request made pursuant to section 144.335, or failure to furnish a medical record or report required by law.

P. Fee-splitting, including without limitation:

► paying, offering to pay, receiving, or agreeing to receive, a commission, rebate, or remuneration, directly or indirectly, primarily for the referral of patients or the prescription of drugs or devices;

► dividing fees with another physician or a professional corporation, unless the division is in proportion to the services provided and the responsibility assumed by each professional, and the physician has disclosed the terms of the division;

► referring a patient to any health care provider in which the referring physician has a significant financial interest, unless the physician has disclosed his or her own financial interest; and

► dispensing for profit any drug or device, unless the physician has disclosed his or her own profit interest.

The physician must make these disclosures to the patient in advance and in writing and must include in the disclosure a statement that the patient is free to choose a different health care provider. The law includes several exclusions to this section. Among these are the distribution of physician revenues to members of a medical partnership, group practice, or professional organization.

Q. Engaging in abusive or fraudulent billing practices, including violations of the federal Medicare and Medicaid laws or state medical assistance laws.

R. Becoming addicted or habituated to a drug or intoxicant.

S. Prescribing a drug or device for other than medically accepted therapeutic, experimental, or investigative purposes authorized by a state or federal agency; or referring a patient to any health care provider as defined in section 144.335 for services or tests not medically indicated at the time of referral.

T. Engaging in sexual conduct with a patient or in any conduct that may reasonably be interpreted by the patient as sexual, or engaging in any verbal behavior that is seductive or sexually demeaning to a patient.

U. Failure to make reports as required by section 147.111 (see Required Reporting, below) or failure to cooperate with an investigation of the board.

Required Reporting

The Medical Practice Act allows a person the opportunity to report any knowledge of conduct that may constitute grounds for discipline. It sets out obligatory reporting for medical institutions, medical societies, licensed health professionals, insurers, and courts. It also requires that physicians report any of their own actions that may be grounds for discipline.

Institutions, including hospitals, clinics, and prepaid medical plans, are required to make a report to the BME of any disciplinary action against a physician, including, action to revoke, suspend, restrict, or condition a physician's privilege to practice or treat patients. Reports made under this section must state the nature of the action taken, state in detail the reasons for the action, and identify the patient medical records upon which action was based. A physician's resignation must also be reported if it is submitted prior to conclusion of a disciplinary proceeding or before formal charges have been made but after the physician knew that formal charges were contemplated.

A state or local medical society must report to the BME any termination, revocation, suspension of membership, or other disciplinary action taken against a physician. If a state or local medical society receives a complaint that may be grounds for discipline but does not take action, it must report this to the BME.

Licensed health professionals are obligated to report personal knowledge of any physician conduct that they reasonably believe constitutes grounds for disciplinary action. This would include conduct indicating that the physician may be medically incompetent or may have engaged in unprofessional conduct or may be medically or physically unable to engage safely in the practice of medicine. A narrow exception to this obligatory reporting states: "No report shall be required if the information was obtained in the course of a physician-patient relationship if the patient is another physician and the treating physician successfully counsels the other physician to limit or withdraw from practice to the extent required by the impairment."

Four times a year, professional liability insurers are required to report physicians against whom medical malpractice settlements or awards have been made to a plaintiff. Specific information, including the dollar amount of each malpractice settlement and the allegations contained in the complaint, must be reported. In addition, insurance companies are obliged to report any information they possess tending to substantiate a charge that a physician may have engaged in conduct in violation of Medical Practice Act provisions.

Court administrators are obligated to report any time a court has ruled a physician to be mentally ill, mentally incompetent, guilty of a felony, guilty of a violation of federal or state narcotics or controlled-substance law, guilty of abuse or fraud under Medicare or Medicaid, or any time the court has appointed a guardian of the physician or commits a physician.

The physician is obligated by the Medical Practice Act to report to the BME any personal action that would require any person, health care facility, business, or organization to file a report as outlined above.

Complaint Handling Procedures

BME staff perform the initial review of complaints and reports received by the board. A complaint that alleges improper sexual contact must be immediately forwarded to the Attorney General's Office for investigation.

BME staff review and summarize the complaint and determine whether it is within its jurisdiction. All complaints made to the board are held in confidence, according to the Minnesota Data Practices Act. The name of the complainant will be revealed only if that person consents. Complainants will be informed if their concerns are not within the board's jurisdiction and may be referred to an appropriate agency for assistance with nonjurisdictional items.

Complaint summaries, along with the physician's biography card and the complaint itself, are for-

Minnesota Board of Medical Examiners Appointments and 1989 Officers

Stephen P. Kelley, J.D., President	1/20/84-1/6/92
Cassius M.C. Ellis, III, M.D., Vice President	1/16/85-1/9/93
David Gilbertson, D.O., Secretary-Treasurer	1/5/87-1/5/91
Jack Bert, M.D.	4/6/83-1/5/91
Meredith Hart	1/6/86-1/6/90
Mary Hartmann	4/6/83-1/5/91
George B. Martin, III, M.D.	3/17/82-1/6/90
M. J. Martin, M.D.	1/17/89-1/9/93
Clyde R. Olson, M.D.	1/5/87-1/9/93
Frank Quattlebaum, M.D.	1/5/87-1/6/92
Melvin E. Sigel, M.D.	1/20/84-1/6/92

warded to a member of the BME's Discipline Committee for review. The Discipline Committee is made up of two physician members and one public member. One committee member will review the complaint and determine, first, whether it is within the jurisdiction of the BME. A complaint that is within the BME's jurisdiction but does not warrant discipline will be returned to board staff. This complaint must then be reviewed by a second board member independent of the initial review (the second reviewer does not know that the first reviewer has recommended dismissal). If a second member recommends dismissal of a complaint within the jurisdiction of the board, Minnesota law requires that the complaint be forwarded to the Attorney General's Office for review.

If the initial board reviewer determines that the complaint is within BME jurisdiction but needs more information to determine whether there has been a violation, the reviewer may request that BME staff gather more information from the complainant or physician, or may refer the complaint to the Attorney General's Office for investigation.

Board staff may, with the complainant's consent, share the complaint with the physician.

The Attorney General's Office will make an independent determination as to jurisdiction, then will decide whether further investigation is needed. If the attorney general calls for an investigation, it will be conducted by a special investigative unit that serves all of the health licensing boards.

An inquiry by the board or an investigation by the attorney general may reveal that there has been no violation, or that there is insufficient evidence to show a violation. In these instances, the complaint may be dismissed.

If it is determined that a discipline conference is required, the Attorney General's Office will prepare a Notice of Conference, which details the allegations that the board suspects may constitute a violation of the Medical Practice Act. It invites the physician to a conference with the BME's Discipline Committee to discuss the allegations and, if applicable, the problem cases or treatment of the specific patient.

A physician called to a discipline conference may be represented by an attorney and should be familiar with the cases or instances the board has investigated and be prepared to discuss these matters. (If the identity of the complainant has been held in confidence, the physician will be informed of that person's identity when he or she receives the Notice of Conference.)

At the close of the discipline conference, the Discipline Committee may recommend a stipulation. This is a document, agreed upon by the physician and the committee, that specifies the grounds for and elements of a disciplinary order. Elements of the stipulation may be outlined for the physician during the discipline conference. Or, the discipline conference may result in a dismissal of the complaint.

If the Discipline Committee recommends a stipulation, the physician will have an opportunity to review it and settle the matter by signing the stipulation, which is then subject to the review and approval of the full board.

If a physician declines to agree to a proposed stipulation, he or she may request a contested case hearing, which is conducted by an administrative law judge from the State Office of Administrative Hearings. In this quasi-judicial proceeding, the BME has the burden of proving that a physician has violated the Medical Practice Act. The physician, as in the conference, may be represented by counsel. The administrative law judge will hear testimony and arguments from both sides. Expert witnesses may be heard and documents submitted. The administrative law judge will issue findings of fact and conclusions of law and make a recommendation to the full board.

The BME, excluding members of the Discipline Committee and any other board members with previous involvement in the case, will consider the recommendation of the administrative law judge and make a final determination regarding discipline.

Appeal of a final board decision may be made to the Minnesota Court of Appeals, which reviews the record created at the administrative contested case level.

Discipline Options Available

In the course of investigation of an alleged violation of a statute or rule, the BME or its executive director may attempt to correct improper activities and redress grievances through education, conference, conciliation, and persuasion. If these attempts do not produce satisfactory results or, if, after investigation, there are grounds to suggest illegal or unauthorized activities, a disciplinary hearing is scheduled.

When the BME finds that a licensed physician has violated a provision of the Medical Practice

Act, it may do one or more of the following:

- revoke the physician's license;
- suspend the license;
- impose appropriate limitations on the physician's practice, including limitation to designated specialties; impose retraining or rehabilitation requirements, supervision of the practice, or conditioned continued practice upon demonstration of knowledge or skills by examination;
- impose a civil penalty not exceeding $10,000. The amount of the penalty will be fixed to deprive the physician of economic advantage gained by reason of the violation or to reimburse the BME for costs incurred;
- order the physician to provide unremunerated professional service; or
- censure or reprimand the physician.

In addition to this wide range of disciplinary actions, the board may, without a hearing, suspend a physician's license. The board may do so when it finds that a physician has violated a statute or rule and determines that continued practice by the physician would create a serious risk of harm to the public. A hearing must be held within 30 days.

Publication of Board Orders

Final board orders disciplining physicians are public information. The BME is required to prepare and release to the public, at least annually, a description of all disciplinary measures taken. The 1988 Minnesota Legislature enacted a very narrow exception to this mandatory publication requirement: The BME may, for a two-year trial period, refrain from publishing the names of physicians who have been disciplined solely on the grounds of addiction to a drug or intoxicant, or inability to practice due to illness, addiction, or aging.

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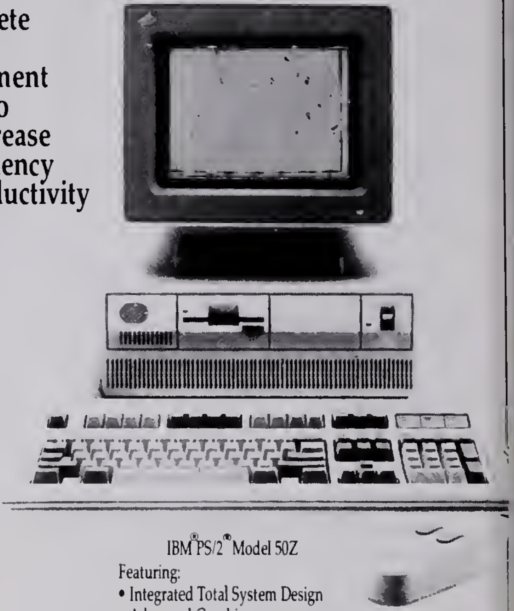

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Griffin from page 128

miss patients. I miss a little boy named Brady Blaser, who has muscular dystrophy. I could tell you stories about families I spent decades growing up with, or about taking care of the children of patients whom I had when I first went into practice. Yes, I do miss patients and families.

But I was also writing a syndicated column and publishing books while I was seeing patients, and it's really hard to do both. It's hard to be maintaining a train of thought about a newspaper column and be interrupted by the telephone and know that you have to see 30 to 50 patients in a day and get home. I was operating in two worlds, so I've looked for a long time at doing just one thing before I burned out. It was an exciting and great opportunity to become editor-in-chief of a medical journal that is a leader in terms of practical information. That was unbelievable.

REECE: *So you pulled up stakes from pediatric practice in the Salt Lake City area and headed east to the Twin Cities to edit a journal with a circulation of 130,000. You must have come with fixed or firm beliefs in how to communicate to physicians.*

GRIFFIN: You're absolutely right. I remember my first day of medical school when I opened a thick textbook and saw long, complicated sentences with multiple-syllable words. It was difficult to understand. I didn't see any reason why communicating information had to be that hard. I didn't see why medical writing had to be as complex as legalese and decided right then that I was going to do something someday about turning this around. I wanted to communicate things in a way that somebody could sit down and read and understand without having to dissect and analyze every sentence and paragraph.

REECE: *So you believe in simplicity, clarity, brevity, and directness?*

GRIFFIN: Yes. And may I say you said it in a more short-winded way than I did. I really do believe in all those things. I like short, punchy one-liners. Sometimes one-word sentences and three-word paragraphs communicate simply and powerfully.

REECE: *You brought these beliefs to* Postgraduate Medicine. *Are you pleased with what you've accomplished in making your journal more direct and readable?*

"I didn't see why medical writing had to be as complex as legalese and decided right then that I was going to do something someday about turning this around."

GRIFFIN: Yes, but we had a solid foundation to build on. For 40 years, *Postgraduate Medicine* has been the industry leader in being a reader-friendly medical publication. That foundation began with Charles Mayo, who was the first editor-in-chief. Allan Ryan, Tom Fleming, and Bob Howard preceded me. They did an absolutely marvelous job of making medical communications readable. Further, they set a higher standard for practicality. In other words, for articles to be accepted for publication in our journals, authors have to be able to help the busy primary care doctor who doesn't have time for gobbledygook.

REECE: *What innovations have you introduced in the journal?*

GRIFFIN: We developed a feature called "Patient Notes" on the inside back cover that can be easily copied for patients. Our "Patient Notes" cover topics like cholesterol, diarrhea, ulcers, angina, and sore throats—all common problems that come up every day. A doctor can have a whole set of these educational handouts in a file, and the original can be reproduced as needed. These "Patient Notes" are illustrated with cartoons and are carefully worded, so they're easy for patients to understand. They communicate information to patients while saving time for doctors.

REECE: *So you came to the Twin Cities, you assumed editorship of this national journal, and you innovated. Even with the burdens of learning a new job, you came up with the idea of an entirely new journal,* Senior Patient. *How did that journal come to be?*

GRIFFIN: We thought of creating a new publication about geriatric medicine, because we knew we had an aging population, and we knew of the great shift in the age of patients doctors were going to be dealing with. After starting a series in January 1988 in *Postgraduate Medicine* called "Postgraduate Geriatrics," we thought we were going to build a new magazine with that name.

REECE: *But somewhere along the course you changed the name. Why was that?*

GRIFFIN: Not only did we change the name, we changed the whole idea. We did extensive research and found that doctors didn't want another clinical medical journal. They had enough from ours and others and were too busy to read those that they had. Our physician focus groups, conducted by outside researchers, told us that doctors had enough clinical journals. They didn't want another one. When they were shown a prototype of *Postgraduate Geriatrics,* they thought the articles were good, but that they could read those in *Postgraduate Medicine.*

The focus group leader then asked: "How do you find out about handling the problems of older patients, especially the ones that are not exactly medical diagnostic problems? How do you know how to coordinate things for these older folks?" The physicians

continued

said they learned by practical experiences, by talking to colleagues, and by figuring it out over the years.

Then, when the physicians were given a preview of some of our ideas for titles like "What to do with Troublesome Patients," "Sex After 60," "Who Lives and Who Dies and Who Decides," or "Helping Patients with Poor Vision," they responded enthusiastically. The focus-group doctors looked at those titles and said, "If you can get us material about this, we'd love it." So, they were shown preview materials that we had created, and they really did like them a lot. Then, more research was done by mail and by telephone with primary care doctors across the country, as well as those on our editorial board, and our ideas crystallized into *Senior Patient.*

REECE: *So you have assembled a journal that is practical, full of hard-hitting advice and repleat with "how to" articles.*

GRIFFIN: "How to" articles are the main things—not exactly medical articles. There are more of these than there are clinical articles. But the clinical articles are different, too—each one being like the last ten minutes of someone's lecture. And these very important articles will be written by the smartest people in the country about the important medical problems of senior patients.

REECE: *By the last ten minutes, you mean: "Skip the preliminaries and give us the summary of what you really want to say"?*

GRIFFIN: Give us the meat of what we want to know. We don't want to have all the background and research and theory. We're going to have articles like Franz Messerli's on isolated systolic hypertension. Franz Messerli is one of the big names in the country on systolic hypertension. When we talked to him about doing an article for our premier issue, he was excited about putting together a compact article—on how to think, how to solve and manage this problem.

REECE: *Your journal will not, then, have any IMRAD articles, meaning introduction, methods, results and discussion.*

GRIFFIN: No, absolutely not. Each compact clinical article in *Senior Patient* will focus on one main thing you want to know about one problem, one concept.

REECE: *I notice in looking at your premier issue, which appeared in January 1989, that you have emotion-filled, colorful photography and exciting graphics. You humanize the senior patient.*

GRIFFIN: If somebody didn't read a word in *Senior Patient* and just flipped through and saw the pictures, he or she should pick up a warm, comfortable attitude about older patients. The feeling will come through that these older people are interesting, challenging, and human, and that it's fun to help them. It's a great experience to be involved with them. That's what these emotion-filled pictures of older people will do. We tested this photographic approach out, too, and found that it works.

So *Senior Patient* will be a *National Geographic* about older people. It will contain articles like this one by Paul Rousseau, about what to do about troublesome patients. Every doctor has troublesome patients. Some of these seniors have reasons to be troublesome. This article offers great pearls that will help every primary care doctor to get patients to do what he or she wants them to do.

REECE: *So we can look upon your journal as a string of pearls about the elderly?*

GRIFFIN: That's right. In fact, we even have a feature called "Pearls." There will be two-, four-, six-liners—the first ones contributed by people competing to become members of the editorial board. It was exciting to see so many people want to be involved. These are people from the front lines of medicine and others from some of the best-known medical school faculties in the country. They told us we had a great idea. We quietly accumulated stacks of pearls, or gems of ideas.

For example, when I was in the coronary care unit after having had bypass surgery, I looked up at the TV set, and it was a blur because the lower part of my bifocals were aimed at it. I wonder how many television sets in hospitals and nursing homes are positioned so people can see them from bed without scrunching their necks or turning sideways or having somebody move the bed in a cockeyed position. This is just one of the pearls in the first issue of *Senior Patient.*

REECE: *So your* Senior Patient *has not only generated enthusiasm but led to a lot of practical contributions by eminent people. That seems to be an ideal combination of circumstances to me.*

GRIFFIN: Yes. It's a blend from those who have spent their lives working with older patients, along with the practical problem-solving

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A new, non-residential, Master's program at The University of Michigan is proposed for Fall, 1989. Designed for health care professionals, the program involves one, four-day weekend each month over a two year period, in Ann Arbor. Curriculum concentrates on health policy analysis and public health administration. It includes work in health politics, resource allocation, epidemiology and biostatistics, risk assessment and risk management, and administration.

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things that doctors in primary care have figured out for themselves out on the front lines.

REECE: *Speaking of practical matters, what will be the circulation of* Senior Patient*?*

GRIFFIN: It will be about 135,000 or so.

REECE: *Enthusiasm aside, what are the possibilities for success?*

GRIFFIN: Before we started illustrating the geriatric series in *Postgraduate Medicine* with this color photography, readership of typical geriatric articles was lower than for the average article. We know how many people read every article in *Postgraduate Medicine,* and we'll know that about *Senior Patient* also, because we did a lot of research to find out what doctors want, what they need, and what they will and won't read. But when we put emotion-filled color photographs in our geriatric articles, the readership went way up. They've done enough research to know what busy doctors say they want to know about senior patients—and that is exactly what we are going to give them. We just won't run articles that aren't interesting and helpful.

REECE: *I believe this is the first new medical journal that the McGraw-Hill Healthcare Group, publisher of* Postgraduate Medicine*, has introduced in 14 years.*

GRIFFIN: Yes.

REECE: *So this experienced publishing house has given you strong backing.*

GRIFFIN: We have enthusiasm up and down the line, from Dan Kelley, vice president for the health care division in Minneapolis, to Bob McGraw, who is executive vice president of McGraw-Hill Information Services in New York, and Wally Serwatka, who is the president of the Information Services Company of McGraw-Hill, and all the way up through the senior officers of McGraw-Hill, including Ralph Schulz, senior vice president-editorial, and Joe Dionne, president and chief executive officer of McGraw-Hill, Inc. Everybody is excited about this new publication.

REECE: *So how would you summarize your first year and a half in the bright and brand new world of medical publishing?*

GRIFFIN: Exciting. Terribly exciting. To go from the front lines of patient care to the front lines of medical publishing—and then to have the opportunity to start a completely new kind of publication—"exciting" is the only word to describe the emotions. ■

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March 10 & 11 **North Region Primary Care Conference** Riverwood Conference Center – March 10: Evening dinner & keynote by Richard Reece, M.D. March 11: Full day seminar featuring luncheon address by Maurice Davidman, M.D.

March 15 **Practice Management Seminar** – 6:00-8:00 p.m. Location and topic to be announced

April 10 **The Third Annual Kerkhof Memorial Lecture** – 5:30 p.m. cocktails; 6:00 p.m. dinner; 7:00 p.m. lecture – Marriott City Center. Sponsored by Metropolitan-Mount Sinai Medical Center. Featured speaker: H.J.C. Swan, M.D., PhD. M.S.C.P., UCLA School of Medicine – "Treatment of Acute Myocardial Infarction, Hemodynamics to Thrombolytics". Charge: $25 for non-Metropolitan-Mount Sinai Physicians.

April 26 **Seminar on "Systemic Necrotizing Vasculitis"** – 3:00-8:30 p.m. Heilicher Auditorium, Phillips Campus of Metropolitan-Mount Sinai Medical Center. Featured speakers: Gene Hunder, M.D., Mayo Clinic: Randi Leavitt, M.D., NIH: and Maren Mahowald, M.D., VA, Minneapolis

May 1 **"The Relative Value Scale"** by Alvin L. Schultz, M.D. – 6:30 p.m. Health Central of Owatonna

May 6 **Cardiology Conference for primary care physicians.** Sponsored by Mercy Medical Center, Metropolitan-Mount Sinai Medical Center and Unity Medical Center – Mercy Auditorium 8:00 a.m.

For further information, contact Beth Murphy, CME Coordinator, Medical Affairs Division, Health One. (612) 574-7716.

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NEWS CLIPS

HMO MDs EARN LESS

On average, physicians employed by health maintenance organizations (HMOs) earned 27.6 percent less than their colleagues in group practice, according to a recent study by Hay Management Consultants of Los Angeles.

The study, based on a survey of 1987 income for 6,800 physicians nationwide, also found that while physicians employed by HMOs received, on the average, slightly higher salaries than physicians employed by hospitals, it also concluded that hospital physicians were more likely to have other sources of income.

The survey also revealed that 60 percent of group practices have incentive plans for their physicians, while only 15 percent of HMOs have such plans.

RURAL HEALTH CARE

The University of Minnesota School of Public Health's division of Health Services Research and Policy has received a $1.02 million grant from the Robert Wood Johnson Foundation to evaluate the foundation's newly established Hospital Rural Health Care Program.

The program supports 13 consortia of rural hospitals across the nation that are developing joint strategies to increase revenues, reduce operating costs, and improve patient care. The evaluation, to be conducted over four years, is the first national effort of its kind. Ira Moscovice, health services research and policy professor at the University of Minnesota, is the evaluation's principal investigator.

METROPOLITAN-MT. SINAI ADMINISTRATOR

Jean B. Keffeler has been named administrator and chief operating officer of Metropolitan-Mount Sinai Medical Center. Keffeler assumed her new position March 1.

SMOKING, DISEASE, & DEATH

A recent federal report warned that smoking remains the "single most important preventable cause of death" in the United States and has caused more deaths and disease than previously believed. The report estimated, for example, that in 1985, 390,000 deaths were attributed to smoking, up from around 300,000 estimated in past reports.

The report, "Reducing the Health Consequences of Smoking: 25 Years of Progress," by the Department of Health and Human Services, however, said the number of adult cigarette smokers in the United States has dropped from 40 percent in 1975 to 29 percent in 1987.

According to the Minnesota Department of Health, 25.2 percent of adult Minnesotans smoke cigarettes.

MAYO LICENSES DRUG

The Mayo Clinic agreed in January to license Hexamethylmelamine, an experimental anticancer drug, to Amswiss Pharmaceuticals, Inc. of San Antonio for $320,000. The agreement marked the first time the clinic has licensed an anticancer drug to a private company.

Under the agreement, Amswiss will have worldwide marketing and manufacturing rights for Hexamethylmelamine, which has been used to treat lymphoma and lung, ovarian, and cervical cancers.

HMO GROWTH SLOWS

Membership growth in health maintenance organizations (HMOs) slowed considerably in the second quarter of 1988, and the total number of HMO plans in the United States declined slightly, according to figures released by InterStudy of Excelsior, Minnesota.

Enrollment in basic HMO plans rose by only 1.1 percent from April 1 to June 30, with a net 350,600 new members bringing total enrollment to almost 31.4 million. During the same period in 1987, a gain of roughly 800,000 members translated into a growth of 3 percent.

Source: American Medical News, *December 23/30, 1988*

MEDICAL CARE FOR BLACKS

Blacks receive less medical care than whites, according to a nationwide report in the January 13 *Journal of the American Medical Association.* One in 11 blacks reported not seeing a physician because of economic reasons in 1986, compared with one in 20 whites. The study reported that 37.2 percent of blacks had not seen a physician within the previous year, compared with 31.7 percent of the white population. For those in poor health, however, the disparity was even greater: 32.2 percent of blacks in poor health hadn't seen a doctor, compared with 17.5 percent of ailing whites.

The study, by Robert Blendon, Sc.D., of the Harvard School of Public Health in Boston, and colleagues, was based on a telephone survey of 10,130 people, and also reported that blacks were less likely to have adequate health insurance.

In a related study in the same *JAMA* issue, researchers reported that continuing underrepresentation of blacks in the medical profession contributes to unequal access to health care. While blacks represent about 12 percent of the U.S. population, they comprise only 6 percent of total medical school enrollment and 5 percent of medical school graduates, according to the report.

HIV-INFECTED NEEDLES

The HIV (human immunodeficiency virus) is transmitted to health care workers in one in every 235 accidental needle pricks, according to 10 related studies presented at a recent symposium on occupational HIV infection held at the University of California, San Francisco. In the 1,339 health care workers studied, there were 1,408 cases of percutaneous exposure to HIV-infected blood, and six of the workers became infected.

The studies also reported that none of 928 cases of mucous membrane exposure resulted in HIV infection, and none of the 566 workers studied became infected as a result of daily household contact.

HEALTH SPENDING UP IN '87

Americans spent 9.8 percent more on health care in 1987 than in 1986, and health care expenditures represented 11.1 percent of the gross national product in 1987, according to the most recent figures compiled by the Health Care Financing Administration (HCFA).

Payments to hospitals represented the largest share of health care spending—39 percent, according to HCFA.

THE UNINSURED

A January report found that 428,000 Minnesotans under age 65, or 11.8 percent, had no health insurance at any time in 1985, which is twice as high as earlier estimates that have been widely used by state officials.

The new report, released by the public advocacy group Minnesota National Health Care Corporation and prepared by Citizen Action, based its information on 1985 Census Bureau information. A 1985 study by the State Planning Agency placed the number of under-65 uninsured at 5.8 percent.

This year's survey estimated that 800,000 to 900,000 Minnesotans, or 20 to 25 percent, did not have full health insurance coverage for the entire year. The 1985 study placed that number at 450,000.

Nationwide, 17.6 percent of the under-65 population is without insurance.

MANDATORY SEAT BELTS

The mandatory use of safety belts can significantly reduce motor vehicle accident injuries and deaths, as well as health care costs, concluded two studies in the December 23/30, 1988, *Journal of the American Medical Association.*

A study of motor vehicle accident injuries in North Carolina before and after the state's mandatory seat belt law was implemented provides strong evidence that the law has achieved its purpose in reducing injuries, saving lives, and cutting health care costs, said the authors, Terence L. Chorba, M.D., M.P.H., of the Centers for Disease Control, Atlanta, and colleagues. They estimated that the North Carolina law may result in 1,100 fewer severe and fatal highway injuries per year.

MEDICARE OVERPAYMENTS

Medicare is overpaying teaching hospitals upwards of $1.2 billion this year, according to a January report by a congressional watchdog agency. The General Accounting Office report said the extra payments offset higher patient care costs, which arise from indirect expenses from medical education programs for interns and residents.

The report recommended reducing the payments by about one-third, which would result in a $766 million savings for this year.

NEW ARTHRITIS DRUG

Lederle Laboratories of Wayne, New Jersey, announced in January that it is marketing the drug methotrexate for treating severe rheumatoid arthritis. The drug was approved by the federal government for treating arthritis last October, but it had been used by specialists well before that, because it had already been approved for treating cancer and severe psoriasis.

For arthritis, the drug is to be used when the patient has not responded adequately to other treatment.

ATHLETIC MEDICINE

Fairview's Institute for Athletic Medicine and North Memorial Medical Center's North Sports Medicine have merged, creating the region's largest program for orthopedic and sports rehabilitation.

The new organization, called the Institute for Athletic Medicine, has sites in Bloomington, Burnsville, Crystal, Eagan, Edina, Golden Valley, Minneapolis, Osseo, Plymouth, Robbinsdale, and Wayzata.

FIRST, THE GOOD NEWS

Deaths from heart and blood vessel disease fell 24 percent in the last decade, the American Heart Association reported in January.

The bad news is, heart disease remains the nation's No. 1 killer. The Heart Association's most recent statistics—for 1986—estimate 978,500 Americans died from heart attacks, strokes, and other heart diseases. Deaths from cancer, the No. 2 killer, totaled 466,000.

DWI ARRESTS DOWN

Drunken-driving arrests for 19- and 20-years-olds in Minnesota fell to 1980 levels after the law to raise the legal drinking age to 21 was implemented two years ago. DWI arrests for 19- and 20-year-olds fell 19 percent from 1986 to 1987, from 3,815 to 3,072 arrests, according to the Minnesota Bureau of Criminal Apprehension. Overall, Minnesota DWI arrests fell 4.7 percent, which means the drop in arrests of 19- to 20-year-olds accounted for half of the decline.

HENNEPIN COUNTY MEDICAL CENTER/HENNEPIN FACULTY ASSOCIATES CALENDAR OF MEDICAL EVENTS

March 31, 1989

SECOND ANNUAL JOHN I. COE SYMPOSIUM
"Viruses: Life in Humans"
This conference is in honor of Dr. John I. Coe who, as Chief of Pathology at Hennepin County Medical Center from 1950 to 1984, and Medical Examiner from 1964 to 1984, set the highest standards of excellence for service, research and education which have served as a continuing inspiration and challenge for students, residents and medical colleagues.
This year's theme is "Viruses: How they persist and cause disease--DNA, (Hepatitis B, etc; Herpes, CMV, EBV), Retrovirus, (HIV).
Guest Speaker: Peter J. Southern, Ph.D.,
LaJolla, California
Chairman: Robert T. Gruninger, M.D.
Hennepin County Medical Center

April 10-11, 1989

ADVANCED TRAUMA LIFE SUPPORT
Chairman: Brian B. Mahoney, M.D.
Hennepin County Medical Center

April 19, 1989

MINNESOTA REGIONAL SLEEP DISORDERS CENTER
Guest Speaker: Wallace Mendelson, M.D.,
Stonybrook, New York
Insomnia-Related Topic--Dinner Program
Co-Chairmen: Milton Ettinger, M.D. and
Mark Mahowald, M.D.
Minneapolis Normandy Inn

April 28, 1989*

GI: NEW APPROACHES TO OLD PROBLEMS
This program is designed for general internists, family practitioners, surgeons and all primary care physicians who deal with gastrointestinal diseases. We will discuss recent developments in diagnoses and therapy of common GI problems. The goal will be to update the primary practitioner in evaluating and treating these disorders.
Guest Speaker: E. Richard Ensrud, M.D.,
Champagne, Illinois
Co-Chairmen: Martin Freeman, M.D., and
Robert Olson, M.D.
Hennepin County Medical Center
*Rescheduled from April 7, 1989

May 5, 1989

CONTINUING MEDICAL/CONTINUING LEGAL EDUCATION
This program is planned by and designed for physicians and lawyers interested in issues common to both professions. Representative topics include the Medical National Disciplinary Data Bank, the Medical Practices Act, the malpractice crises and attitudes of physicians towards litigation and the legal system.
Chairman: Michael B. Belzer, M.D.
Hennepin County Medical Center

May 12, 1989

DIRECTORS OF MEDICAL EDUCATION (DME) CONFERENCE
This conference is designed for Directors of Medical Education, Chiefs of Staff, Officers of County Medical Societies, Quality Assurance Personnel, and Medical Records Personnel. The theme for this year's conference is "Quality Assurance and Continuing Medical Education".
Guest Speaker: Paul J. Dugan, MD, Roseville, California
Chairman: Michael Belzer, M.D.
Hennepin County Medical Center

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CME IN MINNESOTA

Provided through the MMA Medical Education Subcommittee on CME Resources

For assistance with scheduling meetings or for information on future medical meetings and CME courses at the state and national level, please contact the MMA office: 2221 University Avenue SE, Suite 400, Minneapolis, Minnesota 55414; (612) 378-1875. Information for each entry is arranged by date; name of program; primary sponsor; location; contact person.

MARCH 1989

1-3 **Seventh Annual Critical Care Conference** St. Paul-Ramsey Medical Center Continuing Medical Education. CONTACT: Bonnie Young, 640 Jackson Street, St. Paul, Minnesota 55101; (612) 221-3977.

3-5 **Neurology in Clinical Practice** Mayo Clinic/Mayo Foundation; Telemark Resort, Cable, Wisconsin. CONTACT: Rita Kunz, 200 First Street SW, Mayo Clinic, Rochester, Minnesota 55905; (507) 284-2509.

6-10 **Medical Update, 1989 Focusing On: Cardiology, Critical Care, Gastroenterology, Nephrology, Nutrition, Orthopedic Surgery, Pediatrics, Radiology, Surgery** University of Minnesota Office of CME; Hughes Conference Center, Holy Cross Hospital, Fort Lauderdale, Florida. CONTACT: Office of CME, Box 202 UMHC, 420 Delaware Street SE, Minneapolis, Minnesota 55455; (612) 626-5525.

10 **Tenth Annual Occupational Medicine Update** St. Paul-Ramsey Medical Center Continuing Medical Education. CONTACT: Bonnie Young, 640 Jackson Street, St. Paul, Minnesota 55101; (612) 221-3977.

13-17 **Team Management of Diabetes Mellitus** International Diabetes Center; International Diabetes Center, Park Nicollet Medical Foundation, Minneapolis, Minnesota. CONTACT: Lucy Mullen, R.N., B.S., Assistant Director of Education, Park Nicollet Medical Foundation, 5000 West 39th Street, Minneapolis, Minnesota 55416; (612) 927-3393.

16-17 **Family Practice Today** St. Paul-Ramsey Medical Center Continuing Medical Education. CONTACT: Bonnie Young, 640 Jackson Street, St. Paul, Minnesota 55101; (612) 221-3977.

17 **Pyelogram Conference** Minnesota Urological Society; L'Hotel Sofitel, Bloomington, Minnesota. CONTACT: Linda Reynolds, Executive Secretary, 6750 France Avenue South, #149, Edina, Minnesota 55435; (612) 925-0533.

18 **Current Management of Diabetes Mellitus and Related Disorders** Metropolitan-Mount Sinai Medical Center; Hotel Sofitel, Bloomington, Minnesota. CONTACT: Karen L. DeGrio, Metropolitan-Mount Sinai Medical Center, 2215 Park Avenue South, Minneapolis, Minnesota 55404; (612) 872-5735.

27-31 **Team Management of Diabetes Mellitus** International Diabetes Center; International Diabetes Center, Park Nicollet Medical Foundation, Minneapolis, Minnesota. CONTACT: Lucy Mullen, R.N., B.S., Assistant Director of Education, Park Nicollet Medical Foundation, 5000 West 39th Street, Minneapolis, Minnesota 55416; (612) 927-3393.

Mar 30-April 1 **Medical Directors Training Program** University of Minnesota; Office of CME; Riverwood Conference Center, Monticello, Minnesota. CONTACT: Office of CME, Box 202 UMHC, 420 Delaware Street SE, Minneapolis, Minnesota 55455; (612) 626-5525.

APRIL 1989

1 **Minnesota Society of Clinical Pathologists Spring Conference** Radisson University Hotel, Minneapolis, Minnesota. CONTACT: Carmela Brown, 2221 University Avenue SE, Suite 400, Minneapolis, Minnesota 55414; (612) 378-1875.

5-7 **Pulmonary Function Testing Workshop** St. Paul-Ramsey Medical Center. CONTACT: Bonnie Young, St. Paul-Ramsey Medical Center, 640 Jackson Street, St. Paul, Minnesota 55101; (612) 221-3977.

6-7 **Annual Obstetrics and Gynecology Update** St. Paul-Ramsey Medical Center. CONTACT: Bonnie Young, St. Paul-Ramsey Medical Center, 640 Jackson Street, St. Paul, Minnesota 55101; (612) 221-3977.

7 **5th Annual Duluth Heart Conference** The Duluth Clinic and St. Mary's Medical Center; Fitger's Spirit of the North Theater, Duluth, Minnesota. CONTACT: James G. Brueggeman, M.D., 400 East Third Street, Duluth, Minnesota 55805; (218) 722-8364, ext. 179.

7-8 **Colorectal Diseases** University of Minnesota CME; Radisson University Hotel, Minneapolis, Minnesota. CONTACT: James G. Brueggeman, M.D., 400 East Third Street, Duluth, Minnesota 55805; (218) 722-8364, ext. 179.

7-8 **Lasers in Gynecology** Abbott Northwestern Hospital; Abbott Northwestern Hospital, Minneapolis, Minnesota. CONTACT: Tim Schuh, CME Office, Abbott Northwestern Hospital, 800 East 28th Street, Minneapolis, Minnesota 55407; (612) 863-5461.

10-11 **Anterior Segment Immunology & Infectious Diseases** University of Minnesota CME; Holiday Inn Downtown, Minneapolis, Minnesota. CONTACT: Office of CME, Box 202, UMHC, 420 Delaware Street SE, Minneapolis, Minnesota 55455; (612) 626-5525.

10-14 **Team Management of Diabetes Mellitus** International Diabetes Center; International Diabetes Center, Park Nicollet Medical Foundation, Minneapolis, Minnesota. CONTACT: Lucy Mullen, R.N., B.S., Assistant Director of Education, Park Nicollet Medical Foundation, 5000 West 39th Street, Minneapolis, Minnesota 55416; (612) 927-3393.

13-14 **Allergy and Immunology** University of Minnesota CME; Mayo Memorial Auditorium, Minneapolis, Minnesota. CONTACT: Office of CME, Box 202, UMHC, 420 Delaware Street SE, Minneapolis, Minnesota 55455; (612) 626-5525.

14-15 **Children Who Kill** Abbott Northwestern Hospital, Registry Hotel, Bloomington, Minnesota. CONTACT: Tim Schuh, CME Office, Abbott Northwestern Hospital, 800 East 28th Street, Minneapolis, Minnesota 55407; (612) 863-5461.

14-15 **12th Annual Update in Clinical Cardiology** Abbott Northwestern Hospital; Abbott Northwestern Hospital; Minneapolis, Minnesota. CONTACT: Tim Schuh, CME Office, Abbott Northwestern Hospital, 800 East 28th Street, Minneapolis, Minnesota 55407; (612) 863-5461.

16 **Neurosurgery** St. Paul-Ramsey Medical Center. CONTACT: Bonnie Young, St. Paul-Ramsey Medical Center, 640 Jackson Street, St. Paul, Minnesota 55101; (612) 221-3977.

17-19 **Partners in Managing Type II Diabetes** International Diabetes Center; International Diabetes Center, Park Nicollet Medical Foundation, Minneapolis, Minnesota. CONTACT: Lucy Mullen, RN, BS, Assistant Director of Education, Park Nicollet Medical Foundation, 5000 West 39th Street, Minneapolis, Minnesota 55416; (612) 927-3393.

17-19 **Annual Spring Refresher** Minnesota Academy of Family Physicians; Hyatt Regency Hotel, Minneapolis, Minnesota. CONTACT: Virginia Barzan, Executive Director, Minnesota Academy of Family Physicians, 2221 University Avenue SE, Suite 426, Minneapolis, Minnesota 55414; (612) 331-2506.

24-28 **Team Management of Diabetes Mellitus** International Diabetes Center; International Diabetes Center, Park Nicollet Medical Foundation, Minneapolis, Minnesota. CONTACT: Lucy Mullen, RN, BS, Assistant Director of Education, Park Nicollet Medical Foundation, 5000 West 39th Street, Minneapolis, Minnesota 55416; (612) 927-3393.

28-29 **MOS Annual Meeting** Minnesota Orthopaedic Society; Radisson Plaza Hotel, Minneapolis, Minnesota. CONTACT: Carmela Brown, Minnesota Medical Association, 2221 University Avenue SE, Suite 400, Minneapolis, Minnesota 55414; (612) 378-1875.

28-29 **Lasers in General Surgery** Abbott Northwestern Hospital; Minneapolis, Minnesota. CONTACT: Tim Schuh, CME Office, Abbott Northwestern Hospital, 800 East 28th Street, Minneapolis, Minnesota 55407; (612) 863-5461.

Continuing Medical Education

Spring-Fall Conference Schedule

Mark your calendar now for these upcoming conferences:

1989	
February 23 -24	CNS Disease and Trauma, St. Paul
March 10	Tenth Annual Occupational Medicine Update, St. Paul
March 16-17	Family Practice Today, St. Paul
April 6-7	Annual Obstetrics and Gynecology Update, Minneapolis
April 7	ENT Update, St. Paul
May 23-25	Pulmonary Function Testing, St. Paul
June 22-23	Annual Critical Care Medicine Conference, St. Paul
August 25-26	Clinical Applications of Musculoskeletal Allograft, St. Paul
September 5-15	Seventh Annual Occupational Health and Safety Institute, St. Paul
September 22	Women in Transition, St. Paul
October 4-6	Pulmonary Function Testing Workshop, St. Paul
October 19-21	Fifth Ramsey Trauma Conference, St. Paul
November 10	Neurology Update, St. Paul
November 16-18	Clinical Strategies in Primary Care Medicine, St. Paul
December 7-9	Annual Cardiopulmonary Medicine Update, St. Paul

Information and Registration:
Continuing Medical Education, St. Paul-Ramsey Medical Center
640 Jackson Street, St. Paul, MN 55101; Phone 612/221/3992

CME

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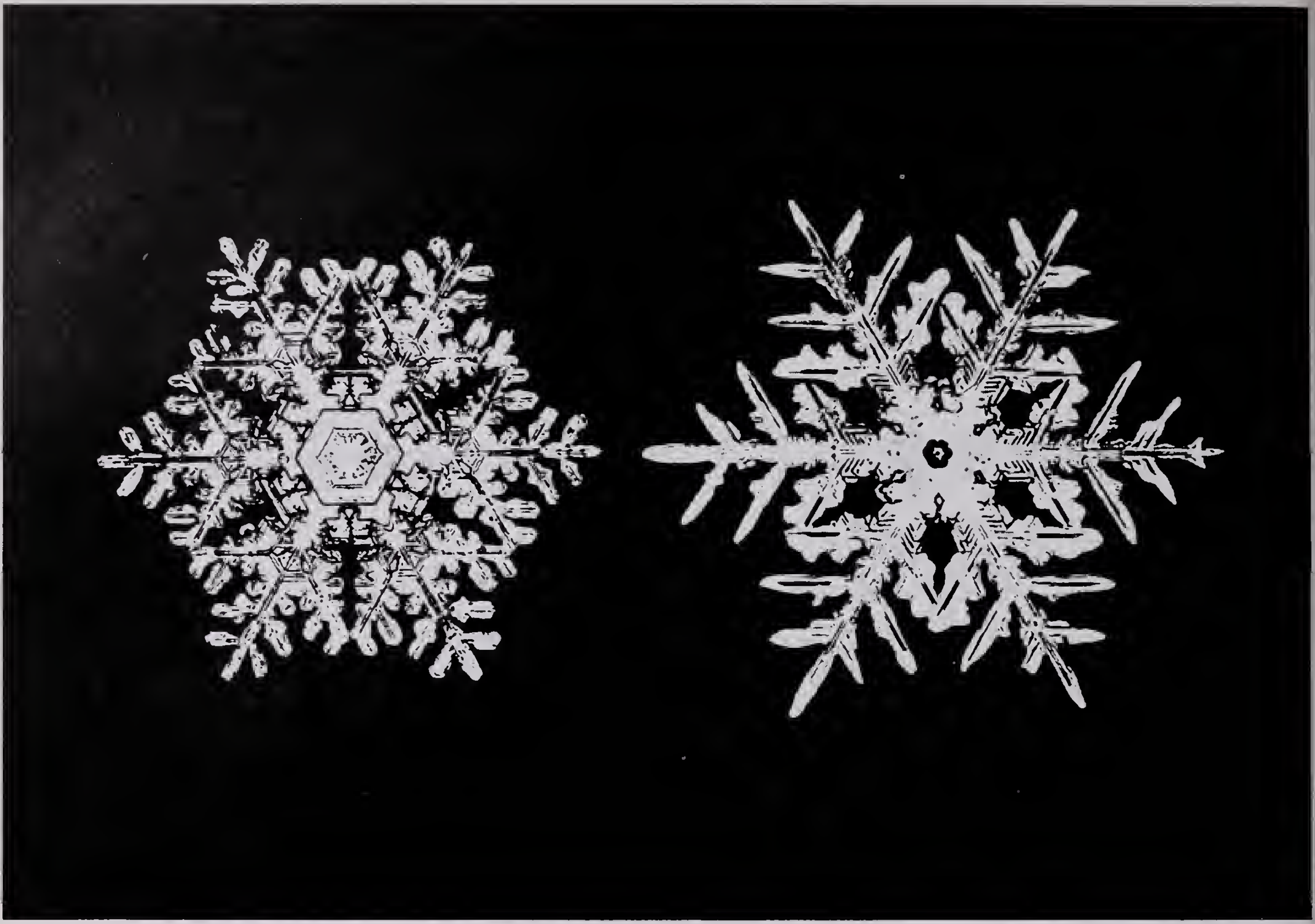

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- ■ Cancelation of ads must be made by the first of the month preceding month of issue.

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Physician: GP/FP/EM seeks locations to cover on weekends as locum tenens. Board-certified. FP. Lic. Minn. Write: Box 35132, Minneapolis, Minnesota 55436. (R)

Wausau Medical Center is seeking BE/BC individuals in the following specialties: cardiology, dermatology, family practice, infectious disease, obstetrics/gynecology, pediatrics, and rheumatology. Modern clinic facility located across the street from modern, 300-bed hospital. Full partnership in three years. Easy access to lakes, woods, and mountains. Write (including CV) to: D.K. Aughenbaugh, M.D., Medical Director, Wausau Medical Center, 2727 Plaza Drive, Wausau, Wisconsin 54401. (R)

Family Physician: Dynamic 13-physician, 3-office, single-specialty practice in northwest Minneapolis suburbs seeking additional associate, BE/BC; OB available. Competitive salary, full benefits, reasonable call and hospital rounds schedule. Contact: Dr. Ken Kephart, Northwest Family Physicians; (612) 476-6776. (R)

Urgent: FP/GP physicians needed for practice opportunities within ARIZONA and throughout the United States. Excellent group and solo opportunities available. For additional information, call (602) 990-8080; or send CV in confidence to: Mitchell & Associates, Inc., PO Box 1804, Scottsdale, Arizona 85252. (*R)

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Mankato Clinic, Ltd. is seeking BE/BC physicians in the following specialties: allergy, dermatology, invasive cardiology, oncology, urology, ophthalmology, and general internal medicine. The Mankato Clinic is a 38-doctor multispecialty group practice in south-central Minnesota with a trade area population of 150,000. Guaranteed salary first year, incentive thereafter with full range of benefits and liberal time off. For more information, call Roger Greenwald, Administrator, or Dr. B.C. McGregor, (507) 625-1811 or write 501 Holly Lane, Mankato, Minnesota 56001. (R)

Family Physician needed to join group of five family physicians in St. Peter, Minnesota, population 9,000, located one hour south of Minneapolis. Contact: Curt Stolee, M.D., or D.A. Nygard, Administrator, St. Peter Clinic, Ltd., 622 Sunrise Drive, St. Peter, Minnesota 56082; (507) 931-2110. (R)

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Family Physician to join medical staff of two family practitioners in well-established rural clinic in central Minnesota, along the southern shores of beautiful Mille Lacs Lake. Excellent subspecialty support, progressive community hospital, diverse patient population. Call collect, (612) 676-3661, or write c/o Nancy Swenson, Clinic Manager, Mille Lacs Family Health Center, PO Box 53, Isle, Minnesota 56342. (R)

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Outstanding Opportunity for a BE/BC Family Physician to join a progressive medical community with eight physicians oriented to family practice. Details will be given by contacting: Dr. Tim Schmitt, Wadena Medical Center; (218) 631-1360; or Jim Lawson, Administrator, Tri-County Hospital, Wadena, Minnesota 56482; (218) 631-3510. (R)

Family Practice: Two BC/BE family practitioners needed to join three progressive physicians for expanding central Minnesota practice. Offering $75,000 first year salary and full corporate membership after one year. Contact: Paul Van Gorp, M.D., (612) 732-2131. 4-4/89

Internist BE/BC: North Shore Internal Medicine, PC is seeking an energetic general internist to enjoy the benefits of a rapidly expanding practice. New office close to hospital. Michigan State Medical School Campus. Send resume to: 2420 First Avenue South, Escanaba, Michigan 49829; (906) 786-1563. (R)

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General Internist: The St. Cloud Medical Group located in central Minnesota has an immediate opening for a general internist to join a 24-physician multispecialty group in St. Cloud, Minnesota. The Department of Internal Medicine currently has two board-certified internists and is in the process of recruiting two additional board-certified internists to that department. This opportunity affords a general internist a great financial and working opportunity. St. Cloud is one of the fastest-growing communities in the state of Minnesota and is home to three major colleges. It is geographically located to provide quick access to the metropolitan Twin Cities area. The St. Cloud community has excellent school systems available to the individual physician and his or her family members. If interested in this excellent opportunity, please call collect: either Dr. Ronald Elg and/or Daryl G. Mathews, Adminstrator, at (612) 251-8181, and/or send curriculum vitae to: St. Cloud Medical Group, PA, 1301 West St. Germain Street, St. Cloud, Minnesota 56301. 4-4/89

Minneapolis Suburban Pediatric Group has opportunity for board-certified or eligible pediatrican. Busy, diverse practice with good compensation and fringe benefit package. Contact: Gene Inett, Administrator, Metropolitan Pediatric Specialists, PA, 416 Southdale Medical Building, Edina, Minnesota 55435; (612) 920-9191. 3-3/89

General Surgeon: Immediate opportunity to establish a practice in a progressive, family-oriented, rural community with excellent schools and outdoor recreation. Reply to: Physician Recruitment, St. Anthony's Hospital, 2nd and Adams Street, O'Neill, Nebraska, 68763; (402) 336-2611. *3-3/89

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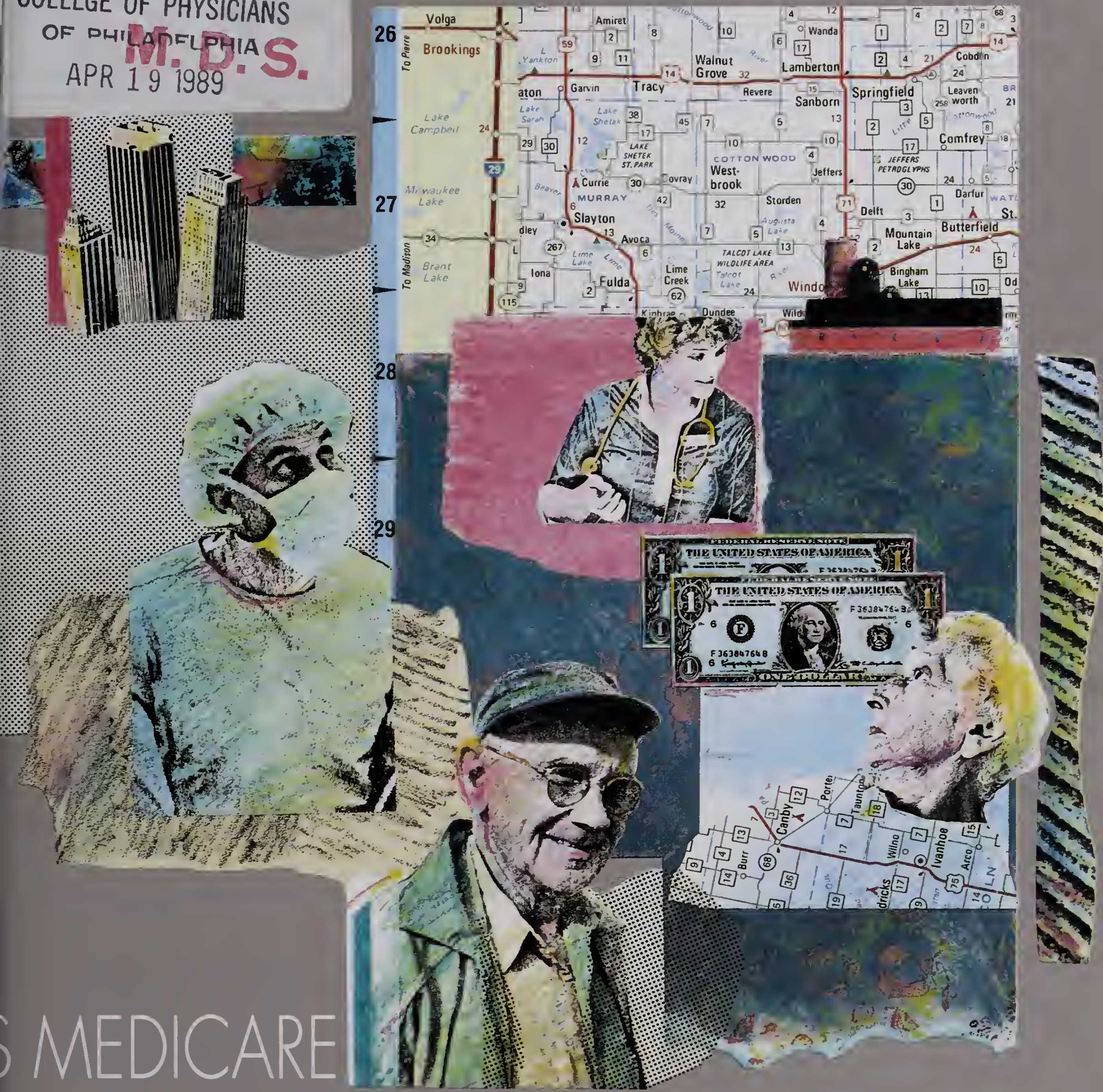
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Contraindications: VASOTEC® (Enalapril Maleate, MSD) is contraindicated in patients who are hypersensitive to this product and in patients with a history of angioedema related to previous treatment with an ACE inhibitor.

Warnings: *Angioedema* Angioedema of the face, extremities, lips, tongue, glottis, and/or larynx has been reported in patients treated with ACE inhibitors, including VASOTEC. In such cases, VASOTEC should be promptly discontinued and the patient carefully observed until the swelling disappears. In instances where swelling has been confined to the face and lips, the condition has generally resolved without treatment, although antihistamines have been useful in relieving symptoms. Angioedema associated with laryngeal edema may be fatal. **Where there is involvement of the tongue, glottis, or larynx likely to cause airway obstruction, appropriate therapy, e.g., subcutaneous epinephrine solution 1:1000 (0.3 mL to 0.5 mL), should be promptly administered.** (See ADVERSE REACTIONS.)

Hypotension: Excessive hypotension is rare in uncomplicated hypertensive patients treated with VASOTEC alone. Heart failure patients given VASOTEC commonly have some reduction in blood pressure, especially with the first dose, but discontinuation of therapy for continuing symptomatic hypotension usually is not necessary when dosing instructions are followed; caution should be observed when initiating therapy. (See DOSAGE AND ADMINISTRATION.) Patients at risk for excessive hypotension, sometimes associated with oliguria and/or progressive azotemia and rarely with acute renal failure and/or death, include those with the following conditions or characteristics: heart failure, hyponatremia, high-dose diuretic therapy, recent intensive diuresis or increase in diuretic dose, renal dialysis, or severe volume and/or salt depletion of any etiology. It may be advisable to eliminate the diuretic (except in heart failure patients), reduce the diuretic dose, or increase salt intake cautiously before initiating therapy with VASOTEC in patients at risk for excessive hypotension who are able to tolerate such adjustments. (See PRECAUTIONS, *Drug Interactions* and ADVERSE REACTIONS.) In patients at risk for excessive hypotension, therapy should be started under very close medical supervision and such patients should be followed closely for the first two weeks of treatment and whenever the dose of enalapril and/or diuretic is increased. Similar considerations may apply to patients with ischemic heart disease or cardiovascular disease in whom an excessive fall in blood pressure could result in a myocardial infarction or cerebrovascular accident. If excessive hypotension occurs, the patient should be placed in supine position and, if necessary, receive an intravenous infusion of normal saline. A transient hypotensive response is not a contraindication to further doses of VASOTEC, which usually can be given without difficulty once the blood pressure has stabilized. If symptomatic hypotension develops, a dose reduction or discontinuation of VASOTEC or concomitant diuretic may be necessary.

Neutropenia/Agranulocytosis: Another ACE inhibitor, captopril, has been shown to cause agranulocytosis and bone marrow depression, rarely in uncomplicated patients but more frequently in patients with renal impairment, especially if they also have a collagen vascular disease. Available data from clinical trials of enalapril are insufficient to show that enalapril does not cause agranulocytosis at similar rates. Foreign marketing experience has revealed several cases of neutropenia or agranulocytosis in which a causal relationship to enalapril cannot be excluded. Periodic monitoring of white blood cell counts in patients with collagen vascular disease and renal disease should be considered.

Precautions: *General: Impaired Renal Function:* As a consequence of inhibiting the renin-angiotensin-aldosterone system, changes in renal function may be anticipated in susceptible individuals. In patients with severe heart failure whose renal function may depend on the activity of the renin-angiotensin-aldosterone system, treatment with ACE inhibitors, including VASOTEC, may be associated with oliguria and/or progressive azotemia and rarely with acute renal failure and/or death.

In clinical studies in hypertensive patients with unilateral or bilateral renal artery stenosis, increases in blood urea nitrogen and serum creatinine were observed in 20% of patients. These increases were almost always reversible upon discontinuation of enalapril and/or diuretic therapy. In such patients, renal function should be monitored during the first few weeks of therapy.

Some patients with hypertension or heart failure with no apparent preexisting renal vascular disease have developed increases in blood urea and serum creatinine, usually minor and transient, especially when VASOTEC has been given concomitantly with a diuretic. This is more likely to occur in patients with preexisting renal impairment. Dosage reduction and/or discontinuation of the diuretic and/or VASOTEC may be required.

Evaluation of patients with hypertension or heart failure should always include assessment of renal function. (See DOSAGE AND ADMINISTRATION.)

Hyperkalemia: Elevated serum potassium (> 5.7 mEq/L) was observed in approximately 1% of hypertensive patients in clinical trials. In most cases these were isolated values which resolved despite continued therapy. Hyperkalemia was a cause of discontinuation of therapy in 0.28% of hypertensive patients. In clinical trials in heart failure, hyperkalemia was observed in 3.8% of patients, but was not a cause for discontinuation.

Risk factors for the development of hyperkalemia include renal insufficiency, diabetes mellitus, and the concomitant use of potassium-sparing diuretics, potassium supplements, and/or potassium-containing salt substitutes, which should be used cautiously, if at all, with VASOTEC. (See *Drug Interactions*.)

Surgery/Anesthesia: In patients undergoing major surgery or during anesthesia with agents that produce hypotension, enalapril may block angiotensin II formation secondary to compensatory renin release. If hypotension occurs and is considered to be due to this mechanism, it can be corrected by volume expansion.

Information for Patients:

Angioedema: Angioedema, including laryngeal edema, may occur especially following the first dose of enalapril. Patients should be so advised and told to report immediately any signs or symptoms suggesting angioedema (swelling of face, extremities, eyes, lips, tongue, difficulty in swallowing or breathing) and to take no more drug until they have consulted with the prescribing physician.

Hypotension: Patients should be cautioned to report lightheadedness especially during the first few days of therapy. If actual syncope occurs, the patients should be told to discontinue the drug until they have consulted with the prescribing physician.

All patients should be cautioned that excessive perspiration and dehydration may lead to an excessive fall in blood pressure because of reduction in fluid volume. Other causes of volume depletion such as vomiting or diarrhea may also lead to a fall in blood pressure; patients should be advised to consult with the physician.

Hyperkalemia: Patients should be told not to use salt substitutes containing potassium without consulting their physician.

Neutropenia: Patients should be told to report promptly any indication of infection (e.g., sore throat, fever) which may be a sign of neutropenia.

NOTE: As with many other drugs, certain advice to patients being treated with enalapril is warranted. This information is intended to aid in the safe and effective use of this medication. It is not a disclosure of all possible adverse or intended effects.

Drug Interactions:

Hypotension–Patients on Diuretic Therapy: Patients on diuretics and especially those in whom diuretic therapy was recently instituted may occasionally experience an excessive reduction of blood pressure after initiation of therapy with enalapril. The possibility of hypotensive effects with enalapril can be minimized by either discontinuing the diuretic or increasing the salt intake prior to initiation of treatment with enalapril. If it is necessary to continue the diuretic, provide close medical supervision after the initial dose for at least two hours and until blood pressure has stabilized for at least an additional hour. (See WARNINGS and DOSAGE AND ADMINISTRATION.)

Agents Causing Renin Release: The antihypertensive effect of VASOTEC is augmented by antihypertensive agents that cause renin release (e.g., diuretics).

Other Cardiovascular Agents: VASOTEC has been used concomitantly with beta-adrenergic-blocking agents, methyldopa, nitrates, calcium-blocking agents, hydralazine, prazosin, and digoxin without evidence of clinically significant adverse interactions.

Agents Increasing Serum Potassium: VASOTEC attenuates potassium loss caused by thiazide-type diuretics. Potassium-sparing diuretics (e.g., spironolactone, triamterene, or amiloride), potassium supplements, or potassium-containing salt substitutes may lead to significant increases in serum potassium. Therefore, if concomitant use of these agents is indicated because of demonstrated hypokalemia, they should be used with caution and with frequent monitoring of serum potassium. Potassium-sparing agents should generally not be used in patients with heart failure receiving VASOTEC.

Lithium: A few cases of lithium toxicity have been reported in patients receiving concomitant VASOTEC and lithium and were reversible upon discontinuation of both drugs. Although a causal relationship has not been established, it is recommended that caution be exercised when lithium is used concomitantly with VASOTEC and serum lithium levels should be monitored frequently.

Pregnancy–Category C: There was no fetotoxicity or teratogenicity in rats treated with up to 200 mg/kg/day of enalapril (333 times the maximum human dose). Fetotoxicity, expressed as a decrease in average fetal weight, occurred in rats given 1200 mg/kg/day of enalapril but did not occur when these animals were supplemented with saline. Enalapril was not teratogenic in rabbits. However, maternal and fetal toxicity occurred in some rabbits at doses of 1 mg/kg/day or more. Saline supplementation prevented the maternal and fetal toxicity seen at doses of 3 and 10 mg/kg/day, but not at 30 mg/kg/day (50 times the maximum human dose).

Radioactivity was found to cross the placenta following administration of labeled enalapril to pregnant hamsters.

There are no adequate and well-controlled studies in pregnant women. VASOTEC® (Enalapril Maleate, MSD) should be used during pregnancy only if the potential benefit justifies the potential risk to the fetus.

Nursing Mothers: Milk in lactating rats contains radioactivity following administration of ¹⁴C enalapril maleate. It is not known whether this drug is secreted in human milk. Because many drugs are secreted in human milk, caution should be exercised when VASOTEC is given to a nursing mother.

Pediatric Use: Safety and effectiveness in children have not been established.

Adverse Reactions: VASOTEC has been evaluated for safety in more than 10,000 patients, including over 1000 patients treated for one year or more. VASOTEC has been found to be generally well tolerated in controlled clinical trials involving 2987 patients.

Hypertension: The most frequent clinical adverse experiences in controlled trials were: headache (5.2%), dizziness (4.3%), and fatigue (3%).

Other adverse experiences occurring in greater than 1% of patients treated with VASOTEC in controlled clinical trials were: diarrhea (1.4%), nausea (1.4%), rash (1.4%), cough (1.3%), orthostatic effects (1.2%), and asthenia (1.1%).

Heart Failure: The most frequent clinical adverse experiences in both controlled and uncontrolled trials were: dizziness (7.9%), hypotension (6.7%), orthostatic effects (2.2%), syncope (2.2%), cough (2.2%), chest pain (2.1%), and diarrhea (2.1%).

Other adverse experiences occurring in greater than 1% of patients treated with VASOTEC in both controlled and uncontrolled clinical trials were: fatigue (1.8%), headache (1.8%), abdominal pain (1.6%), asthenia (1.6%), orthostatic hypotension (1.6%), vertigo (1.6%), angina pectoris (1.5%), nausea (1.3%), vomiting (1.3%), bronchitis (1.3%), dyspnea (1.3%), urinary tract infection (1.3%), rash (1.3%), and myocardial infarction (1.2%).

Other serious clinical adverse experiences occurring since the drug was marketed or adverse experiences occurring in 0.5% to 1% of patients with hypertension or heart failure in clinical trials in order of decreasing severity within each category:

Cardiovascular: Myocardial infarction or cerebrovascular accident, possibly secondary to excessive hypotension in high-risk patients (see WARNINGS, *Hypotension*); cardiac arrest; pulmonary embolism and infarction; rhythm disturbances; atrial fibrillation; palpitation.

Digestive: Ileus, pancreatitis, hepatitis or cholestatic jaundice, melena, anorexia, dyspepsia, constipation, glossitis.

Nervous/Psychiatric: Depression, confusion, ataxia, somnolence, insomnia, nervousness, paresthesia.

Urogenital: Renal failure, oliguria, renal dysfunction (see PRECAUTIONS and DOSAGE AND ADMINISTRATION), prostate hypertrophy.

Respiratory: Bronchospasm, rhinorrhea, asthma, upper respiratory infection.

Skin: Herpes zoster, pruritus, alopecia, flushing, photosensitivity.

Other: Muscle cramps, hyperhidrosis, impotence, blurred vision, taste alteration, tinnitus.

A symptom complex has been reported which may include fever, myalgia, and arthralgia; an elevated erythrocyte sedimentation rate may be present. Rash or other dermatologic manifestations may occur. These symptoms have disappeared after discontinuation of therapy.

Angioedema: Angioedema has been reported in patients receiving VASOTEC (0.2%). Angioedema associated with laryngeal edema may be fatal. If angioedema of the face, extremities, lips, tongue, glottis, and/or larynx occurs, treatment with VASOTEC should be discontinued and appropriate therapy instituted immediately. (See WARNINGS.)

Hypotension: In the hypertensive patients, hypotension occurred in 0.9% and syncope occurred in 0.5% of patients following the initial dose or during extended therapy. Hypotension or syncope was a cause for discontinuation of therapy in 0.1% of hypertensive patients. In heart failure patients, hypotension occurred in 6.7% and syncope occurred in 2.2% of patients. Hypotension or syncope was a cause for discontinuation of therapy in 1.9% of patients with heart failure. (See WARNINGS.)

Clinical Laboratory Test Findings:

Serum Electrolytes: Hyperkalemia (see PRECAUTIONS), hyponatremia.

Creatinine, Blood Urea Nitrogen: In controlled clinical trials, minor increases in blood urea nitrogen and serum creatinine, reversible upon discontinuation of therapy, were observed in about 0.2% of patients with essential hypertension treated with VASOTEC alone. Increases are more likely to occur in patients receiving concomitant diuretics or in patients with renal artery stenosis. (See PRECAUTIONS.) In patients with heart failure who were also receiving diuretics with or without digitalis, increases in blood urea nitrogen or serum creatinine, usually reversible upon discontinuation of VASOTEC and/or other concomitant diuretic therapy, were observed in about 11% of patients. Increases in blood urea nitrogen or creatinine were a cause for discontinuation in 1.2% of patients.

Hemoglobin and Hematocrit: Small decreases in hemoglobin and hematocrit (mean decreases of approximately 0.3 g% and 1.0 vol %, respectively) occur frequently in either hypertension or heart failure patients treated with VASOTEC but are rarely of clinical importance unless another cause of anemia coexists. In clinical trials, less than 0.1% of patients discontinued therapy due to anemia.

Other (Causal Relationship Unknown): In marketing experience, rare cases of neutropenia, thrombocytopenia, and bone marrow depression have been reported.

Liver Function Tests: Elevations of liver enzymes and/or serum bilirubin have occurred.

Dosage and Administration: *Hypertension:* In patients who are currently being treated with a diuretic, symptomatic hypotension occasionally may occur following the initial dose of VASOTEC. The diuretic should, if possible, be discontinued for two to three days before beginning therapy with VASOTEC to reduce the likelihood of hypotension. (See WARNINGS.) If the patient's blood pressure is not controlled with VASOTEC alone, diuretic therapy may be resumed.

If the diuretic cannot be discontinued, an initial dose of 2.5 mg should be used under medical supervision for at least two hours and until blood pressure has stabilized for at least an additional hour. (See WARNINGS and PRECAUTIONS, *Drug Interactions*.)

The recommended initial dose in patients not on diuretics is 5 mg once a day. Dosage should be adjusted according to blood pressure response. The usual dosage range is 10 to 40 mg per day administered in a single dose or in two divided doses. In some patients treated once daily, the antihypertensive effect may diminish toward the end of the dosing interval. In such patients, an increase in dosage or twice-daily administration should be considered. If blood pressure is not controlled with VASOTEC alone, a diuretic may be added.

Concomitant administration of VASOTEC with potassium supplements, potassium salt substitutes, or potassium-sparing diuretics may lead to increases of serum potassium (see PRECAUTIONS).

Dosage Adjustment in Hypertensive Patients with Renal Impairment: The usual dose of enalapril is recommended for patients with a creatinine clearance >30 mL/min (serum creatinine of up to approximately 3 mg/dL). For patients with creatinine clearance ≤30 mL/min (serum creatinine ≥3 mg/dL), the first dose is 2.5 mg once daily. The dosage may be titrated upward until blood pressure is controlled or to a maximum of 40 mg daily.

Heart Failure: VASOTEC is indicated as adjunctive therapy with diuretics and digitalis. The recommended starting dose is 2.5 mg once or twice daily. After the initial dose of VASOTEC, the patient should be observed under medical supervision for at least two hours and until blood pressure has stabilized for at least an additional hour. (See WARNINGS and PRECAUTIONS, *Drug Interactions*.) If possible, the dose of the diuretic should be reduced, which may diminish the likelihood of hypotension. The appearance of hypotension after the initial dose of VASOTEC does not preclude subsequent careful dose titration with the drug, following effective management of the hypotension. The usual therapeutic dosing range for the treatment of heart failure is 5 to 20 mg daily given in two divided doses. The maximum daily dose is 40 mg. Once-daily dosing has been effective in a controlled study, but nearly all patients in this study were given 40 mg, the maximum recommended daily dose, and there has been much more experience with twice-daily dosing. In addition, in a placebo-controlled study which demonstrated reduced mortality in patients with severe heart failure (NYHA Class IV), patients were treated with 2.5 to 40 mg per day of VASOTEC, almost always administered in two divided doses. (See CLINICAL PHARMACOLOGY, *Pharmacodynamics and Clinical Effects*.) Dosage may be adjusted depending upon clinical or hemodynamic response. (See WARNINGS.)

Dosage Adjustment in Heart Failure Patients with Renal Impairment or Hyponatremia: In heart failure patients with hyponatremia (serum sodium <130 mEq/L) or with serum creatinine >1.6 mg/dL, therapy should be initiated at 2.5 mg daily under close medical supervision. (See DOSAGE AND ADMINISTRATION, *Heart Failure*, WARNINGS, and PRECAUTIONS, *Drug Interactions*.) The dose may be increased to 2.5 mg b.i.d., then 5 mg b.i.d. and higher as needed, usually at intervals of four days or more, if at the time of dosage adjustment there is not excessive hypotension or significant deterioration of renal function. The maximum daily dose is 40 mg.

For more detailed information, consult your MSD representative or see Prescribing Information. Merck Sharp & Dohme, Division of Merck & Co., Inc., West Point, PA 19486. J6VS18R(815)

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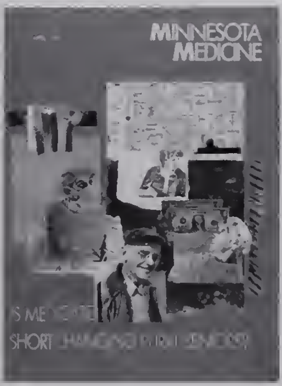

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The cover illustration and those throughout this issue are by Gail Swanlund of St. Paul.

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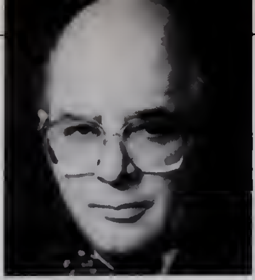
RICHARD L. REECE, M.D.

Facts and Dispatches from the Rural Health Care Battlefield

I have always liked to read accounts of battles. Among my favorite battlefield writers are Bruce Catton, who wrote numerous books on the Civil War; Barbara Tuchman, who wrote movingly of World War I in the "Guns of August"; William Manchester, who recounted General MacArthur's battle strategies in the "American Ceasar"; and Winston Churchill, who never met a battle he didn't like and who described most of the battles of the English-speaking peoples.

If you read these and other authors, you learn that great generals depend on the accuracy of facts and dispatches from the battlefield. These facts and dispatches ought to reflect reality, rather than mirroring military leaders' perceptions of the way things ought to be.

The Rural Health Battlefield

I'm now going to give you a set of facts and five dispatches on rural health care. As you read these bits of information about the American rural health care battlefield, you will learn rural regions in this country are losing the fight to provide cutting-edge health care to their citizens. Rural sections don't have the resources, the votes, or the critical masses of expertise to supply the same quality of goods as the cities. It always has been so, but in the United States, the government has aggravated the urban-rural health gap by underpaying rural hospitals and physicians and overcharging rural citizens.

Here, I present selective facts and dispatches to give you a better grasp of what's happening beyond our city limits.

First Dispatch

Panel Outlines Rural Health Plight

As many as 600 rural hospitals may close in the next few years, says the Senate Aging Committee, blaming low Medicare rates. Medicare pays about 14.5 percent more to urban hospitals than to rural facilities; the panel urges eliminating that differential. Medicare also pays rural doctors less than their urban counterparts; the panel wants those distinctions ended as well. But even higher pay won't solve rural America's health provider shortages. By 1993, as many as 25 percent of rural physicians may retire or leave their communities. The growing physician supply has helped some rural areas, but communities with fewer than 10,000 residents have trouble recruiting doctors and nurses. The panel backs an $8-to-$10 million investment in National Health Service Corps scholarships to recruit doctors to rural areas. Other suggestions: an annual survey of hospital wages to create a "more appropriate" Medicare wage index; simpler rules for rural hospitals that seek a Medicare payment adjustment when patient volume drops; and cost-based payments for sole community hospitals.

Source: McGraw-Hill, *Medicine & Health*, Vol. 42, No. 43, October 31, 1988

Second Dispatch

Rural Hospitals—The Crisis is Now

Tom Gilligan, et al.

Prospective payment is not working as it was intended for rural hospitals. Prospective payment is based on average cost per discharge. The system assumes that a hospital will have a sufficient number of discharges so that payment shortfalls from treating some Medicare patients can be made up by positive margins on caring for other patients. Significant numbers of rural hospitals do not have sufficient volume to even out payment shortfalls.

According to a study by the Catholic Health Association, the average Medicare operating margin for Catholic rural hospitals is expected to be −14.3 percent in the fiscal year beginning October 1, 1989. This and other data suggest "that Medicare operating margins for all hospitals, but particularly rural hospitals, are rapidly becoming increasingly negative," observe the authors. "The trend line is down and the decline promises to be precipitous."

Source: *Federation of American Health Systems Review*, Vol. 21, No. 6, November-December 1988, pp. 27-33, Federation of American Health Systems

continued

Third Dispatch

Profits Down, Debts Up: Hospitals Pessimistic about Future

Deborah S. Pinkney
AMN *Staff*

It was a year for extremes: The nation's hospitals seemed to be either inundated and overwhelmed, or understaffed, underutilized, and undercompensated as the industry faced monumental strains in 1988.

Under Medicare's prospective payment system, urban hospitals are paid, on average, 39.6 percent more than are rural hospitals. And 83 percent of hospitals that lost money in each of the three years of prospective payment were in rural areas, said a report from the Senate Special Committee on Aging.

Source: *American Medical News,* January 6, 1989

Fourth Dispatch

Oregon, Texas Seek New Ways to Bolster Rural Health Care

Amy Carlsen

Across the nation, states are grappling with new ways to deal with the persistent problems of providing care to rural communities.

In Oregon, for example, medical and hospital associations are lobbying for unique legislation allowing a $5,000 tax credit for doctors who practice in rural areas. At least 13 other states have rural health offices that offer various incentives to doctors who live outside urban areas.

The Texas Special Task Force on Rural Health Care Delivery has made recommendations, including the creation of a central office to coordinate rural health care. The problem is especially acute in Texas, where 3.2 million people live in rural communities and hospitals are closing at an alarming rate.

Between 1984 and 1987, 59 Texas hospitals closed, most of them in rural communities. And in 1987, nearly one-fourth of all hospital closures in the country were in Texas, according to the Texas Hospital Association, the American Hospital Association, and the Texas Department of Health.

Source: *HealthWeek,* January 23, 1989

Fifth Dispatch

Rural Hospital Group Sues HHS over DRG

Paul R. McGinn
AMN *Staff*

The National Rural Health Association has filed suit against the federal government claiming that Medicare's prospective payment system for rural hospitals is unconstitutional.

In the suit, filed last month, NRHA attorneys alleged that Medicare's diagnosis-related group (DRG) system violates the due process rights of rural hospitals because such payments are "inadequate and unreasonably low."

The suit, which names as defendant Otis R. Bowen, M.D., in his capacity as secretary of the Department of Health and Human Services, claimed due process rights of rural hospitals are violated because the prospective payment system impairs rural hospitals' duty to provide community service and free care. Filed in federal district court in Washington, D.C., it is a class action of an estimated 2,700 rural hospitals in the nation.

Source: *American Medical News,* December 2, 1988

Set of Facts

Adjusted average per capita costs (AAPCC) from selected Minnesota counties.

Upper Tier of Payment	
Hennepin	$257.51
Ramsey	$252.86
Anoka	$239.15
Dakota	$227.86
Washington	$217.14
Lower Tier of Payment	
Blue Earth	$148.27
Rock	$146.42
Freeborn	$139.21
Kandiyohi	$134.06
Chippewa	$128.52

Source: Department of Health and Human Services

Closing Remarks

And there you have it—a crisp set of facts and dispatches about the rural health crisis, culminating in a lawsuit by the National Rural Health Association against the U.S. government. You will read more about this crisis from two front-line commentators—Robert Van Hook, executive director of the National Rural Health Association, and Richard Mulder, M.D., a family practitioner from Ivanhoe, Minnesota—both of whom I interview in this issue.

Summary

To sum up, large discrepancies in Medicare payments exist for patients, hospitals, and physicians in rural and urban America. These charges force rural Medicare patients to pay more for services, hospitals to close, and physicians to leave or not come to rural regions. Rural America is losing the battle to maintain its health system, but it is gaining recognition for the magnitude of its financial underpayment. ■

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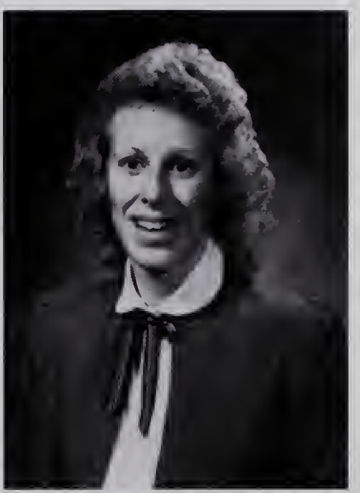

Debra M. Peterson

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First-person Rural

REECE: *You are executive director of the National Rural Health Association. What is the mission of that organization?*

VAN HOOK: We have a general mission to improve rural health and rural health care, and we do that by advocacy, communication, education, and research.

REECE: *Whom do you represent? Who are the members of your organization?*

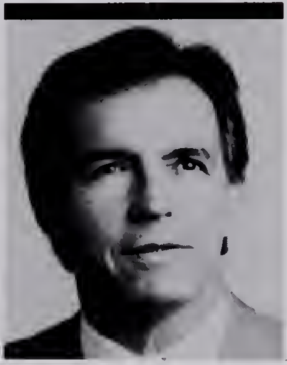
VAN HOOK: We represent a diverse group of members: hospitals, nursing homes, community health centers, private doctors, nurses, academics—both researchers and teachers—as well as policymakers. All have a common interest in rural health.

REECE: *The December 2, 1988, issue of* American Medical News *carried a news article saying that the National Rural Health Association had filed suit against the federal government, claiming that Medicare's prospective payment system for rural hospitals was unconstitutional. How is that suit going?*

VAN HOOK: It's going well. We believe that Congress has tried to remedy its establishing of a dual payment system for urban and rurals over the last several years. It's been trying to narrow the gap between the two, but one- to two-percent solutions to a 40-percent differential problem aren't enough. Rural hospitals are really under pressure because of those payments and other things that have happened to them over the last several years. We filed the suit on November 9, and the federal government filed its response to the suit in January. We are in the process now of certifying the class, and then we'll be responding again within another month. It's in the federal district court in Washington, D.C. We're waiting to see what happens next.

REECE: *What are the prospects for the suit? What will happen if you win?*

Van Hook to page 242



ROBERT VAN HOOK

I've never met Robert Van Hook, executive director of the National Rural Health Association, in person. But I can tell you this: I like his style. In this interview, he graphically presents his case for rural America's health plight. He does it effectively. He has a case and a cause, he's direct, he sticks to the central issues, and he describes his constituents' problems in terms I can grasp. I interviewed him by telephone in his National Rural Health Association office in Kansas City, Missouri.

Robert Van Hook says rural patients, rural doctors, and rural hospitals have two big problems—lack of money and lack of power.

- *The lack of money largely stems from Medicare underfunding. This underfunding has been going on 23 years, but its effects—which have been given a big shove by stingy prospective hospital payments, leading to widespread hospital closings—are just beginning to become apparent on a large scale, i.e., more than 600 of America's 2,700 rural hospitals may close in the next five years. Since 1965, Medicare has systematically underfunded rural areas—hospitals by about 40 percent and physicians by at least that much. Indeed, for any given procedure, a physician in a coastal city—Los Angeles, Miami, or New York—may receive four to seven times as much as his or her rural counterpart for the same procedure on a Medicare patient who pays the same Medicare premium in both places.*
- *The lack of power comes from where Americans have chosen to live. In America today, 25 percent of us live in rural areas, and 75 percent reside in urban areas. Political power and Medicare funds are similarly distributed.*

How does the rural health system overcome lack of money and power? By concentrating on payment inequities, by showing that these inequities are unfair and that they create a new American underclass, and by constant grassroots lobbying to bring these problems to the attention of politicians and the media. Consider this a small effort on my part to help the cause of rural health care.

A Crusading Knight from Ivanhoe

When I interviewed Dr. Richard Mulder at his sister-in-law's condominium in St. Louis Park, I immediately picked up on the fact he was from Ivanhoe, Minnesota. As a boy, the novel "Ivanhoe" enthralled me. Even today, the book conjures up images of knights in armor and damsels in distress.

Dr. Richard Mulder is a modern knight in shining armor. Oh, he doesn't look like a knight. At 6'4" and well over 250 pounds, he looks more like a blacksmith who could lift the knight's horse to shoe it. Besides, I can't conceive of the horse who could carry Richard in full armor. Dr. Mulder doesn't talk like I imagine a knight would talk, either, i.e., in elegant Elizabethan English. Instead, he lays his words on the table, in earthly English that bespeaks his Iowa origins.

But believe me, Richard Mulder is a knight on a crusade. For the last several years, he has been on a crusade that has taken him to medical meetings all over the country, to the state legislature, to Washington, D.C., to meetings of senior citizens, and to gatherings of his fellow doctors. Not only has he launched a crusade, Saving Rural Health Care, but he has created a damsel in distress, the Rural Senior Citizens of America. Quite simply, he believes the federal government has been covertly, cruelly, and cravenly underfunding these citizens for 23 years. As he sees it, all Medicare patients, urban and rural, pay exactly the same premiums, but they get reimbursed at different rates, and that is just not fair. In his view, rural senior citizens have been forced, in effect, to subsidize urban patient care by paying more out their own pockets.

Don't take my word for it. Take his:

"Medicare patients in Minnesota are subsidizing care for Medicare patients in large coastal cities in an amount exceeding $1 billion a year."

"Medicare patients in all rural areas of the United States are subsidizing care of all urban citizens in an amount exceeding $18 billion a year."

REECE: *Dr. Mulder, you've been in a private one-man practice for 19 years in Ivanhoe, Minnesota, a town of 800 people in southwestern Minnesota. For several years you've been intensely concerned about deteriorating health care in rural Minnesota, reduced access to that care, and inadequate Medicare reimbursement. To study and possibly to remedy that problem, you accepted a Bush Fellowship in 1987. What is the magnitude of the problem?*

MULDER: A while back, there was a report that about 55 percent of rural hospitals gave excellent care. That number has dropped to about 44 percent. Also, fewer students are applying to medical school, and the grade point average is lower for new medical students than it has been in the past. There have been insinuations of a reduction in not only access to health care but in the quality of the care provided. I wanted to study the reasons why when I applied for a Bush Fellowship. After I received the fellowship, I found perceptions that there was reduced access to quality health care all over rural America, especially to senior citizens, and I discovered that the main cause of that problem was inadequate reimbursement, not only to senior citizens for outpatient medical care, but also to rural hospitals for inpatient care.

RICHARD MULDER, M.D.

REECE: *How did this come to be, the vast disparities between hospital pay and physician pay in rural versus urban areas?*

MULDER: It started with the 1965 Social Security Act, which enacted the Medicare program. That started in January 1966. The reimbursement formula was based on what physicians were charging at the time. Not a large amount of high-tech medicine was being practiced in rural America then. High-tech equipment just wasn't there. So the cost for patients in rural America was quite low compared with large

continued

metropolitan areas. Unfortunately, the reimbursement formula hasn't changed for 23 years, and urban patients have had disproportionate increases in reimbursement compared with rural America. Meanwhile, rural physicians and hospitals have caught up with technology and are able to treat almost as many severe problems as can be treated in urban areas. We have the expensive equipment; we can do most of the diagnostic studies done anywhere in the country. So it costs more to do business out there now, and we have to charge more. Unfortunately, Medicare is still back in 1965.

REECE: *In our conversation preparatory to this interview, you cited some statistics for me from the Health Care Financing Administration (HCFA) for the end of 1987 for Part B Medicare reimbursement. You said the average reimbursement figure per capita in the United States was $97. The figures for Miami, in Dade County, were $192; $176 for Los Angeles; $159 for New York City; $85 for Hennepin County; $83 for Ramsey County; and $43 for Meeker County in Minnesota. In Minnesota only two counties exceeded the national average of $97. Are people aware of these tremendous differences? Do they know that almost the entire state is being systematically underfunded? Do they realize Minnesota physicians are being punished for being conservative in the past?*

MULDER: I don't think they were aware of this before. This information was hard to come by in the first place. When I put these figures together in a report and gave them to medical societies, they were amazed by the disparities. In fact, in most rural counties in Minnesota the reimbursement to seniors is at about 50 percent of the national average. In other words, the amount of money Medicare is willing to spend for the outpatient care of a Medicare patient in rural Minnesota is half as much as the national average, and only about one-fourth as much as on the East or West coast. The payment disparity can be even larger; in some large cities, seniors are reimbursed up to seven times as much as they're reimbursed in rural America.

"The physician is going to have to charge what he has to to maintain a viable practice. It's the senior citizen who is being shortchanged by the federal government."

REECE: *And similar payment differences also extend to procedures and to hospitals. Is that correct?*

MULDER: That's correct. Since the prospective payment system was introduced in 1983, rural hospitals now receive 36.7 percent less reimbursement than urban hospitals. That's across the board for all rural America.

REECE: *So the net effect of this is a systematic underfunding across the board of health care in rural America with almost an impending collapse of the whole system?*

MULDER: I wouldn't call it an "impending collapse." I put together resolutions for equal reimbursement that went to the American Medical Association, the American Academy of Family Physicians, and the National Rural Health Association. All the resolutions passed. Congress now realizes there is a problem. Something should be done about it. But up to this point in time very little has been done.

REECE: *You seem to have brought this to the awareness of the political world. You launched a one-man crusade to do so. Tell us about your journeys and where you went to learn about this problem, what politicians you met with, and how these resolutions came to be.*

MULDER: After realizing there was a serious problem in 1983 and after studying this off and on for four years, I studied the problem much more intensely for about a year after the Bush Fellowship. I was able to accumulate a great amount of indisputable data from the federal government and from the Health Care Financing Administration. I organized these facts so it was easy for most physicians and health care providers to understand that there was definitely a problem. After I put that information together, I wrote up resolutions for equal reimbursement. Even physicians who charge more for a procedure really can't argue with the data I have and the unfairness of the situation.

I'm not saying that a physician in Miami can't charge seven times more for a procedure. What I'm saying is, if a senior citizen in my home town pays exactly the same premium for his outpatient medical care, then he should be reimbursed at the same rate. As it is now, if the doctor on the East Coast charges more for a procedure and is reimbursed such a large amount, he often doesn't bill that patient, so the patient doesn't have to pay any out-of-pocket money. Whereas, even though I charge half as much in Ivanhoe as I would on the East Coast, Medicare reimburses me only one-fourth as much, so I have to balance bill my patient. From my patient's point of view, medical care is more expensive in rural America than it is in urban America, which, of course, is just not true.

When you take these numbers to senior citizen groups they can very easily understand what the problem is. They understand that they are really getting the shaft here in rural America. They see that they are paying the same premium, but they're getting reimbursed one-fourth of what their counterparts are getting in the larger cities.

After I took this resolution through our county medical society, it was then taken to the Minnesota Medical Association and now has been approved by the American Medical Association as part of its approval of the resource-based relative value scale study. Our southwest chapter of the Minnesota Academy of Family Physicians (MAFP) unanimously approved it as did the MAFP and the American Academy of Family Physicians (AAFP), where it is one of the most important topics to be discussed. I was informed a few weeks ago that I had been appointed to a national rural health task force set up by the AAFP, and we will be having a meeting on April 21 to discuss these enormous problems.

REECE: *So, in a real sense, you're serving as an advocate for elderly people. They're the ones who are being shortchanged.*

MULDER: The physician is going to have to charge what he has to to maintain a viable practice. It's the senior citizen who is being shortchanged by the federal government.

> **"In most rural counties in Minnesota the reimbursement to seniors is at about 50 percent of the national average."**

REECE: *Were seniors aware of this? Did these facts surprise the rural elderly? Were they indignant?*

MULDER: They were completely unaware that this problem existed. As I said before, they had the perception that it costs more to get medical care in rural America. They didn't know it was because Medicare was reimbursing them so much less. But now they find that they're paying the same premium and are reimbursed at one-half the national average and one-fourth of the urban average. They are very angry, and they want something done. In effect, they are subsidizing the health care of seniors on the East and West coasts by paying a larger premium and by being reimbursed so much less.

REECE: *What percent of seniors live in rural America?*

MULDER: Twenty-nine percent of all senior citizens live in rural America; that's about 7.5 million people. Also, private insurance companies follow the polices set up by Medicare. So private fee schedules or reimbursement policies indirectly affect about 59 million other Americans living in rural areas.

REECE: *So there's a trickle down*

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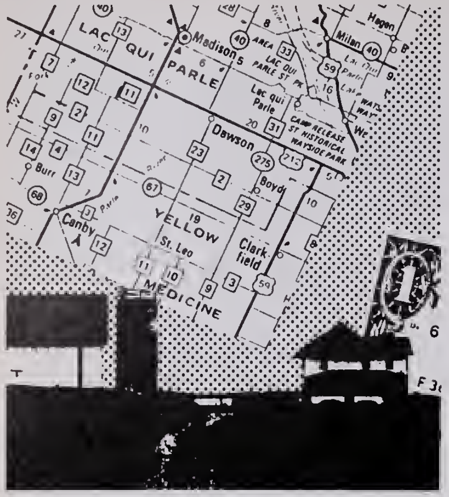

of federal payment policies to private insurance companies. Not only are Medicare patients being shortchanged, but so is everybody else.

MULDER: That's true. Private insurance companies make one little change: They do have lower premiums in rural areas. That reduction in premium charge isn't enough, but it's different than what the federal government does. The government charges exactly the same premium, even though they reimburse rural senior citizens at one-fourth the rate of urban senior citizens.

REECE: *So in effect, rural America is underinsured due to federal policy.*

MULDER: Yes. When you figure how many senior citizens are out there and how much they pay for their medical care and what the cost of that care is, it comes to very large numbers. In fact, in Minnesota, rural senior citizens are subsidizing urban senior citizens on the East Coast to the tune of over $1 billion a year. And nationally, when you count the extra premiums that all 7.5 million seniors are paying, that amounts to a disparity of over $18 billion a year.

REECE: *So much for the patients. How about hospitals? Rural hospitals are characteristically smaller and have lower census and shorter stays. These lower payments must be devastating to some of them.*

MULDER: These have been difficult times for hospitals, especially since 1983. Forty-three rural hospitals closed last year; 200 rural hospitals closed since 1980. For 1989 it's expected that one rural hospital will close every 10 days, and in the next few years over 680 rural hospitals are expected to close if this reimbursement inequity continues.

REECE: *What are the political prospects for these payment inequities continuing or being reversed?*

MULDER: That's the most difficult problem we have right now. About 30 percent of the people elected to Congress understand these rural health care problems and are willing to change them. Unfortunately, the other 70 percent represent the large urban coastal states and the larger cities of this country, and they are unwilling to make any changes. They know that they have already received adequate reimbursement for their citizens, and they aren't willing to give up that $18 billion a year that rural America is sending to them.

REECE: *And since urban legislators have more people, they have more political clout?*

> **"Unfortunately, the reimbursement formula hasn't changed for 23 years, and the urban patients have had disproportionate increases in reimbursement compared with rural America."**

MULDER: That's right. They've got the votes, and they've got two-thirds majority. That's the problem. We can't get them to understand the enormity of the problem here in rural America.

REECE: *On your trips to Washington, did you talk to urban politicians?*

MULDER: I've talked to several urban politicians. They don't see a problem out here, and they are unwilling to spend much time attending to the problems of rural America. They think, like in their cities, that seniors are best served by large metropolitan hospital complexes. Their citizens have to travel only three, four, or five miles to their large city hospitals; they don't understand that our senior citizens would have to travel 100 to 200 miles to one of their complexes. They have no knowledge or concept of what will happen when rural hospitals and rural medical health care provider groups close down in rural America.

REECE: *When you talk about rural "provider groups" closing down, are you speaking of the doctors too? Do you think that in the next five years many rural physicians will retire and not be replaced or will return to the city?*

MULDER: Studies project that within the next five years about 25 percent of rural physicians won't be practicing where they are. Every town that loses its hospital almost invariably loses its physicians. Those physicians will not be replaced. Twenty-five percent of all physicians in the country are older physicians. In rural America, 75 percent of the physicians are what we call older physicians.

REECE: *I thought the federal premise was that we would educate more doctors, and they would diffuse out into the rural areas. That isn't happening?*

MULDER: We're educating more doctors, but they're not coming to rural America. Canada, with its nationalized health care system, realized that problem and started to reimburse rural physicians five percent more than urban physicians. They still can't get enough physicians in rural Canada. In fact, I talked to physicians in Vancouver, British Columbia, who are not working as physicians. They would rather get another job and stay in the city than be paid more to work as a physician in rural Canada.

REECE: *So what are the solutions?*

MULDER: Number one is equal reimbursement. If senior citizens pay the same Social Security tax for

Part A Medicare, then their hospitals should be reimbursed exactly the same. And if they pay exactly the same Part B premium for their Medicare, then they should be reimbursed exactly the same in Ivanhoe, Minnesota, as they are in Miami, Florida. Only that one correction will take care of all the problems, including the nursing shortage, the doctor shortage, and the closing of rural hospitals.

REECE: *What is it going to take to get that solution?*

MULDER: To get two-thirds of Congress to agree to change the system. Dr. William Roper at the Health Care Financing Administration has no intention of changing the system. It's been in place for 23 years, and nobody wants to change anything after that length of time.

REECE: *Do you see the Bush administration as champions of your cause?*

MULDER: No, I don't. Locally we've had good success, because Senator Durenberger has initiated bills to help out rural hospitals and recently appointed a member of his staff to do a thorough study on geographic disparity. One of his aides told me that Durenberger is formulating three new bills now to try to correct this problem.

> **"In some large cities, seniors are reimbursed up to seven times as much as they're reimbursed in rural America."**

REECE: *But you're going to try to insert this issue into the resource-based relative value scale (RBRVS) debate?*

MULDER: Not really. That's a different problem. That's a problem where one specialist is reimbursed more than another specialist. It's a supply and demand problem that's going to correct itself. While I hope that RBRVS is eventually implemented, and I think it will be, that's not going to help the geographic disparity for rural America. First, seniors have to have equal pay for equal premium. Once that's done, along with the RBRVS, we will have equity in the entire system.

REECE: *What will you do next?*

MULDER: The easiest part so far is spending hundreds of days and thousands of hours getting the numbers together and putting them in easy-to-understand reports. The hardest part is being persistent and trying to get the information out to the citizens of the country and trying to get people in Congress to understand the problem. I don't know how to change Congress' opinion on this, but that's going to be the hardest thing we have to do. ■

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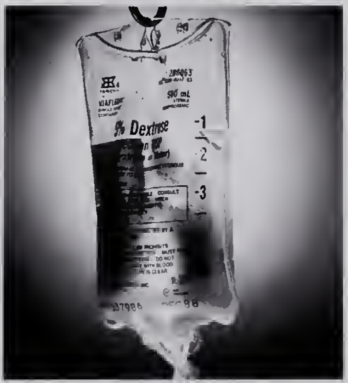

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The Future of Rural Hospitals

Ira Moscovice, Ph.D.

Rural America is in transition. This transition is being fueled by changes in basic social, economic, and demographic factors. A dramatic reversal in long-term population trends occurred in the 1970s, and for the first time in the twentieth century, nonmetropolitan areas grew faster than metropolitan areas in the United States.[1] However, in the mid-1980s, these population increases have disappeared as the rural economy has weakened. Demographic shifts in rural areas will have important implications for the future status of rural health care systems.

Predicting future trends in the health care system is risky at best. The future of rural hospitals depends not only on what happens inside the walls of the institution but also on the changes taking place in the larger health care system and in rural America in general.

With respect to the latter, a key issue is whether the emerging societal trend toward decentralization is likely to continue. It is important that the locus of control for rural health care remains in the local community. Aggressive competition from urban-based providers will be harmful if it leads to the closure of rural hospitals and the acceleration of economic problems in rural areas.

Rural communities and health professionals must enter cooperative arrangements with other communities and health professionals to assure that the complete range of health services will be predictably available in a time of need. Many rural hospitals resist cooperative arrangements, spurred by the fear they will be swallowed up by the larger institutions with which they work. Rural leaders must be deliberate in the way they enter into such arrangements and realize they have considerable latitude in the types of arrangements they can develop.

"Rural communities must work together in building these sensitive and sensible regional networks, rather than dissipate their energies competing fruitlessly with each other."

Rural communities must work together in building these sensitive and sensible regional networks, rather than dissipate their energies competing fruitlessly with each other.

In the larger health care system, traditional fee-for-service care will increasingly be challenged and replaced by the growth of alternative delivery systems, such as HMOs and PPOs. Many of these alternatives will be the offspring of health care providers in saturated urban markets. We have already seen recent evidence of this trend, which has resulted in 118 HMOs serving 408 rural counties in 34 states by June 1984.[2]

Nevertheless, the residency-trained family practitioner will solidify his or her role as the core of the rural physician supply. There will be a continued re-emphasis of the generalist role in rural health care despite educational and regulatory forces (specialization and credentialing) that militate against the production of the confident generalist. Market forces will start to distribute the oversupply of specialists to nonmetropolitan areas, but those areas with the greatest need for physicians (counties with populations under 50,000) will continue to have problems attracting family practitioners or specialists.

The current emphasis on health care cost containment will militate against improved access to health care services, particularly for rural areas with significant needs. These areas will increasingly consider the use of alternatives to the traditional physician entrepreneurial model, including the development of health cooperatives and coalitions, the use of alternative delivery systems, the use of non-physicians in remote areas, and the use of state and local health departments for the direct provision of primary care. Targeted approaches for rural areas or populations with special problems will replace the comprehensive efforts of the 1970s aimed at improving access to health care services in rural areas.

The short-term future appears precarious for rural hospitals. The economic viability of this institution will remain tenuous. The hospital industry in the 1980s and 1990s will continue its thrust of the past 15 years in reducing the total number of hospitals. Hospitals at high risk of closure include small nonteaching hospitals, most of which

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currently are located in rural areas.[3] Thus, the number of rural hospital closures is likely to rise.

The continued reimbursement pattern of the prospective payment system (PPS) will, without doubt, affect the economic viability of rural hospitals. Efficient rural hospitals are not necessarily rewarded appropriately under the current PPS. At present, the transition to a PPS based on national rates will make a difficult situation potentially life-threatening for many small rural hospitals. The technical and conceptual difficulties inherent in the current PPS must be addressed.

The PPS was designed to pay hospitals appropriately for the "product" they produce. For similar patients, differences in payments should reflect differences in input prices (both labor and nonlabor) and not differences in geographic location. A rural hospital should not be penalized because it is located near an urban area or because it is in a specific region of the country. Rural hospitals must be able to compete with urban hospitals on an equal basis. The structure of the reimbursement system must reward the appropriate delivery of rural health services. The current PPS should be adjusted so accurate measurements of input prices and case mix are the primary basis of differentials in payment rates. Geographic location should not be the driving force in payment rate differentials. If the inequity in the difference between urban and rural payment rates is not eliminated, rural hospitals will be severely affected.

The nursing shortage in rural hospitals will remain critical. The appropriateness of nursing education to rural nursing needs may be further reduced if current proposals suggesting a baccalaureate degree as a minimum requirement for registered nurse licensure are passed by state legislatures.

Capital financing for construction projects and equipment purchases will become more difficult to obtain for many rural hospitals, unless Medicare develops an approach for payment of capital expenditures that specifically addresses the needs of rural hospitals. This is unlikely; hence, capital will remain a constrained resource for many small rural hospitals.

Despite these problems, community leaders in some rural areas will begin to recognize that the hospital can be a conduit for change in the rural health care system. In these instances, hospitals will undergo rational internal planning processes that will partition the range of inpatient services into those that can be provided safely, economically, and acceptably in the local hospital and those for which patients must travel outside the local environs. Managers of these hospitals will examine the range of options available to assist the rural hospital in meeting its objective of providing health services to the local community as well as ensuring its economic survival.

"Community leaders in some rural areas will begin to recognize that the hospital can be a conduit for change in the rural health care system."

For example, one of the major options that can be used to strengthen the rural hospital is linkage with multi-hospital systems. Participation in multi-institutional arrangements can range from the sharing of clinical or administrative services by two or more hospitals to consortia for education and training purposes or the acquisition of small rural hospitals by investor-owned hospital chains. In 1983, approximately one-third of rural hospitals were affiliated with a multi-hospital system. Half of these were owned, leased, or sponsored by a system, and half were managed by a system.[4]

Multi-institutional arrangements can provide access to capital financing, new technology, and other resources that normally would not be available to the small rural hospital. However, the locus of control is of special concern when linkages with other institutions are developed.

Rural hospitals can be an agent of change in rural communities. They can accomplish this goal only if they have the full support of their local communities and state government, and if they are not overburdened with the cost-containment efforts central to current federal health policy.

This material was excerpted from Moscovice, Ira: "The Future of Rural Hospitals," in Financing Rural Health Care, *LaVonne Straub and Norman Walzer, eds. (Praeger Publishers, New York, a division of Greenwood Press, Inc.) 1988, LaVonne Straub and Norman Walzer; reprinted with permission.*

Ira Moscovice is a professor in the University of Minnesota School of Public Health's division of Health Services Research and Policy, which recently received a $1.02 million grant from the Robert Wood Johnson Foundation to evaluate the foundation's newly established Hospital-Based Rural Health Care Program. Dr. Moscovice is the project's principal investigator.

References

1. Moscovice I, Rosenblatt R: A prognosis for the rural hospital—Part I: Are rural hospitals economically viable? J Rural Health 1(2):11-33, July 1985.

2. Christianson J, et al.: The new environment for rural HMOs. Health Affairs 5:105-121, Spring 1986.

3. Mullner R, McNeil D: Rural and urban hospital closures: A comparison. Health Affairs 5:131-141, Fall 1986.

4. American Hospital Association: Rural Hospitals Face Upheaval (Chicago: American Hospital Association, June 1985). Media background sheet.

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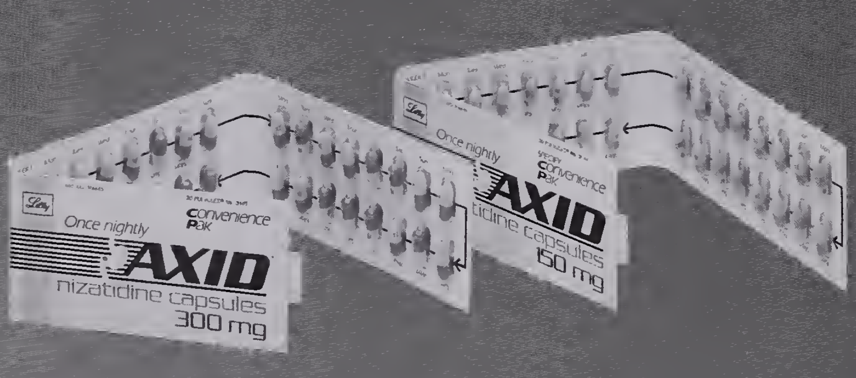

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Contraindication: Axid is contraindicated in patients with known hypersensitivity to the drug and should be used with caution in patients with hypersensitivity to other H_2-receptor antagonists.

Precautions: *General* — 1. Symptomatic response to nizatidine therapy does not preclude the presence of gastric malignancy.

2. Because nizatidine is excreted primarily by the kidney, dosage should be reduced in patients with moderate to severe renal insufficiency.

3. Pharmacokinetic studies in patients with hepatorenal syndrome have not been done. Part of the dose of nizatidine is metabolized in the liver. In patients with normal renal function and uncomplicated hepatic dysfunction, the disposition of nizatidine is similar to that in normal subjects.

Laboratory Tests — False-positive tests for urobilinogen with Multistix® may occur during therapy with nizatidine.

Drug Interactions — No interactions have been observed between Axid and theophylline, chlordiazepoxide, lorazepam, lidocaine, phenytoin, and warfarin. Axid does not inhibit the cytochrome P-450-linked drug-metabolizing enzyme system; therefore, drug interactions mediated by inhibition of hepatic metabolism are not expected to occur. In patients given very high doses (3,900 mg) of aspirin daily, increases in serum salicylate levels were seen when nizatidine, 150 mg b.i.d., was administered concurrently.

Carcinogenesis, Mutagenesis, Impairment of Fertility — A two-year oral carcinogenicity study in rats with doses as high as 500 mg/kg/day (about 80 times the recommended daily therapeutic dose) showed no evidence of a carcinogenic effect. There was a dose-related increase in the density of enterochromaffin-like (ECL) cells in the gastric oxyntic mucosa. In a two-year study in mice, there was no evidence of a carcinogenic effect in male mice; although hyperplastic nodules of the liver were increased in the high-dose males as compared with placebo. Female mice given the high dose of Axid (2,000 mg/kg/day, about 330 times the human dose) showed marginally statistically significant increases in hepatic carcinoma and hepatic nodular hyperplasia with no numerical increase seen in any of the other dose groups. The rate of hepatic carcinoma in the high-dose animals was within the historical control limits seen for the strain of mice used. The female mice were given a dose larger than the maximum tolerated dose, as indicated by excessive (30%) weight decrement as compared with concurrent controls and evidence of mild liver injury (transaminase elevations). The occurrence of a marginal finding at high dose only in animals given an excessive and somewhat hepatotoxic dose, with no evidence of a carcinogenic effect in rats, male mice, and female mice (given up to 360 mg/kg/day, about 60 times the human dose), and a negative mutagenicity battery are not considered evidence of a carcinogenic potential for Axid.

Axid was not mutagenic in a battery of tests performed to evaluate its potential genetic toxicity, including bacterial mutation tests, unscheduled DNA synthesis, sister chromatid exchange, mouse lymphoma assay, chromosome aberration tests, and a micronucleus test.

In a two-generation, perinatal and postnatal fertility study in rats, doses of nizatidine up to 650 mg/kg/day produced no adverse effects on the reproductive performance of parental animals or their progeny.

Pregnancy — Teratogenic Effects — Pregnancy Category C — Oral reproduction studies in rats at doses up to 300 times the human dose and in Dutch Belted rabbits at doses up to 55 times the human dose revealed no evidence of impaired fertility or teratogenic effect; but, at a dose equivalent to 300 times the human dose, treated rabbits had abortions, decreased number of live fetuses, and depressed fetal weights. On intravenous administration to pregnant New Zealand White rabbits, nizatidine at 20 mg/kg produced cardiac enlargement, coarctation of the aortic arch, and cutaneous edema in one fetus and at 50 mg/kg it produced ventricular anomaly, distended abdomen, spina bifida, hydrocephaly, and enlarged heart in one fetus. There are, however, no adequate and well-controlled studies in pregnant women. It is also not known whether nizatidine can cause fetal harm when administered to a pregnant woman or can affect reproduction capacity. Nizatidine should be used during pregnancy only if the potential benefit justifies the potential risk to the fetus.

Nursing Mothers — Studies conducted in lactating women have shown that <0.1% of the administered oral dose of nizatidine is secreted in human milk in proportion to plasma concentrations. Caution should be exercised when administering nizatidine to a nursing mother.

Pediatric Use — Safety and effectiveness in children have not been established.

Use in Elderly Patients — Ulcer healing rates in elderly patients are similar to those in younger age groups. The incidence rates of adverse events and laboratory test abnormalities are also similar to those seen in other age groups. Age alone may not be an important factor in the disposition of nizatidine. Elderly patients may have reduced renal function.

Adverse Reactions: Clinical trials of nizatidine included almost 5,000 patients given nizatidine in studies of varying durations. Domestic placebo-controlled trials included over 1,900 patients given nizatidine and over 1,300 given placebo. Among reported adverse events in the domestic placebo-controlled trials, sweating (1% vs 0.2%), urticaria (0.5% vs < 0.01%), and somnolence (2.4% vs 1.3%) were significantly more common in the nizatidine group. A variety of less common events was also reported; it was not possible to determine whether these were caused by nizatidine.

Hepatic — Hepatocellular injury, evidenced by elevated liver enzyme tests (SGOT [AST], SGPT [ALT], or alkaline phosphatase), occurred in some patients and was possibly or probably related to nizatidine. In some cases, there was marked elevation of SGOT, SGPT enzymes (greater than 500 IU/L) and, in a single instance, SGPT was greater than 2,000 IU/L. The overall rate of occurrences of elevated liver enzymes and elevations to three times the upper limit of normal, however, did not significantly differ from the rate of liver enzyme abnormalities in placebo-treated patients. All abnormalities were reversible after discontinuation of Axid.

Cardiovascular — In clinical pharmacology studies, short episodes of asymptomatic ventricular tachycardia occurred in two individuals administered Axid and in three untreated subjects.

CNS — Rare cases of reversible mental confusion have been reported.

Endocrine — Clinical pharmacology studies and controlled clinical trials showed no evidence of antiandrogenic activity due to Axid. Impotence and decreased libido were reported with equal frequency by patients who received Axid and by those given placebo. Rare reports of gynecomastia occurred.

Hematologic — Fatal thrombocytopenia was reported in a patient who was treated with Axid and another H_2-receptor antagonist. On previous occasions, this patient had experienced thrombocytopenia while taking other drugs. Rare cases of thrombocytopenic purpura have been reported.

Integumental — Sweating and urticaria were reported significantly more frequently in nizatidine- than in placebo-treated patients. Rash and exfoliative dermatitis were also reported.

Hypersensitivity — As with other H_2-receptor antagonists, rare cases of anaphylaxis following administration of nizatidine have been reported. Because cross-sensitivity in this class of compounds has been observed, H_2-receptor antagonists should not be administered to individuals with a history of previous hypersensitivity to these agents. Rare episodes of hypersensitivity reactions (eg, bronchospasm, laryngeal edema, rash, and eosinophilia) have been reported.

Other — Hyperuricemia unassociated with gout or nephrolithiasis was reported. Eosinophilia, fever, and nausea related to nizatidine administration have been reported.

Overdosage: Overdoses of Axid have been reported rarely. The following is provided to serve as a guide should such an overdose be encountered.

Signs and Symptoms — There is little clinical experience with overdosage of Axid in humans. Test animals that received large doses of nizatidine have exhibited cholinergic-type effects, including lacrimation, salivation, emesis, miosis, and diarrhea. Single oral doses of 800 mg/kg in dogs and of 1,200 mg/kg in monkeys were not lethal. Intravenous median lethal doses in the rat and mouse were 301 mg/kg and 232 mg/kg respectively.

Treatment — To obtain up-to-date information about the treatment of overdose, a good resource is your certified regional Poison Control Center. Telephone numbers of certified poison control centers are listed in the *Physicians' Desk Reference (PDR)*. In managing overdosage, consider the possibility of multiple drug overdoses, interaction among drugs, and unusual drug kinetics in your patient.

If overdosage occurs, use of activated charcoal, emesis, or lavage should be considered along with clinical monitoring and supportive therapy. Renal dialysis for four to six hours increased plasma clearance.

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Additional information available to the profession on request.

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1. Data on file, Lilly Research Laboratories.

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Dr. Allen Van Beek

Saving Lives and Limbs in Rural Minnesota

By
Miriam K. Feldman

When Allen Van Beek was 13 a tractor ran over both of his legs. He and his brother had been riding the tractor on the family farm in Strasburg, North Dakota, when the young Van Beek fell off. Now, 32 years later, Van Beek talks about the accident as if it were yesterday. He recalls his brother's panic; the ride to the hospital in the back seat of a car, with no attention paid to stabilizing his injuries; the surgery to repair his legs; and the long summer of recuperation. And, with an ironic laugh, he talks about being sent to the "big city"—Bismarck, population 30,000—for further medical attention. He rode to Bismarck in the back of a hearse.

One in five farm families is involved in a farm accident in Minnesota each year. In 1987, the last year for which records are available, 48 people died from accidents on Minnesota farms.

Farm accidents, such as the one Van Beek experienced, are not uncommon. In fact, agriculture remains one of the most hazardous professions. One in five farm families is involved in a farm accident in Minnesota each year. In 1987, the last year for which records are available, 48 people died from accidents on Minnesota farms.

The majority of the accident victims were men, who typically are discovered by a wife or older child. All too often, like Van Beek's brother, they panic, and lose precious time getting the victim to an emergency treatment center. But in Minnesota, during the past six years, farm family members have been better prepared to cope during those early moments following an accident, thanks to a program developed by Van Beek.

The program, called First Care, teaches families what to do if an accident occurs. Van Beek, who is a plastic and reconstructive surgeon in private practice in the Twin Cities, developed the instructional program in 1982, with the help of the Minnesota Farm Bureau and the financial support of North Memorial Medical Center in Robbinsdale.

"I felt like there was a huge void in the rural health care system," Van Beek said. No first-aid training was given to farm families. Many wives did not understand the complicated equipment their husbands were using. And children didn't know the hazards on the farm, he explained in a recent interview. First Care is his attempt to fill that void.

Yet, as Van Beek is quick to point out, First Care is not a safety program. It was created to teach farm families where hazards exist, and then what to do when an accident occurs. "It's my assumption, regardless of how safe we are, we're going to have accidents," he says.

First Care is taught by trained volunteers who use a textbook and video prepared by Van Beek. It is truly a grassroots effort and has reached nearly every county in Minnesota, as well as many in the Dakotas and Wisconsin. As a result, farm accident victims are likely to be discovered by a person who knows, above all, not to panic, how to call for help, and how to care for the victim until the ambulance arrives. Accident victims are taken to the nearest hospital to be examined by local physicians, who then may decide to send the patient to a trauma center, perhaps by helicopter.

The program makes such good sense that it is hard to imagine things were ever any other way. But Deanna Coudron, a member of the Minnesota Farm Bureau's women's committee, says that Dr. Van Beek's program is the first real effort to train people in rural communities to deal with farm accidents. Even though they had emergency medical technicians, Coudron says, often a victim would bleed to death before help arrived. Even today, it can take an ambulance in rural areas 30 minutes to reach the accident site, especially if the accident occurred in a farm field.

Ten Steps of First Care

1. Don't panic
2. Shut off equipment
3. Check airway (A)
4. Check breathing (B)
5. Check circulation (C)
6. Stop bleeding with bandages
7. Check spine
8. Splint fracture
9. Notify neighbor
10. Transport

Van Beek came to Minnesota in 1980 from Southern Illinois University, where he had been teaching. Almost immediately after moving here, he proposed his idea for First Care, but it was not embraced. Southern Illinois is where the idea was born to reach out to the farm community with life-saving information. A local insurance company, impressed with Van Beek's reimplantation work, sent fliers to rural areas informing people what to do in case of an accident. "There was a lot of interest in the program," Van Beek says.

So, when he got to Minnesota, he proposed the idea to Gerald Hagaman, chief administrator of the Minnesota Farm Bureau. Hagaman, who has nothing but praise for Van Beek, admits that he was slow to respond to the doctor's initial overtures. "We get a lot of calls from people with ideas," Hagaman explained. "Not all of them are as significant as this one." It took some time before Hagaman realized that Van Beek was on to something. "I began seeing articles in the papers about his reattaching limbs. I realized that person had something very significant to offer."

So Hagaman and Van Beek finally sat down in 1982 to talk about First Care, and the farm bureau chief agreed to let Van Beek take the idea to the bureau's women's committee. As Hagaman puts it, "He provided the technical aspects, and I provided the running gears. We put the wheels under it."

The "wheels" turned out to be the women, who saw the significance of First Care right away. Van Beek knew that it is women who typically find the accident victims—their injured husbands or children. "I have a way of being able to get to people's hearts," Van Beek says. And it was the women's heart strings that he tugged, particularly with stories of injured farm children.

"I think he repaired so many children, and he got so he couldn't handle it anymore. He had to do something," says women's committee member Coudron. "He's got some very strong feelings about these farm injuries. That comes across when you work with him."

Coudron organized volunteers in a 12-county area to train family members through 4H, Future Farmers of America, and neighborhood and extension groups. Like Van Beek, she knows the hazards of farm life. She tells stories about children being run over or backed over after falling off tractors. Accidents with augers are most common, she says, and many children are injured while riding lawn mowers.

Farm accidents involving children are in the minority, yet to Van Beek they are the worst. After repairing the severed fingers, hands, arms, and legs of nearly a thousand people, he says the one accident that still haunts him involved a two-year-old child who had both arms cut off above the elbow. "That has left me with a lot of memories. You never put it out of your head," he said. "I have seen a lot of horrible, horrible things." Accidents to children are the worst, because children are so young and so unprotected, he said.

Fortunately, many of those accident victims, including that two-year-old, can have their severed body parts reattached with the microsurgery that Van Beek performs. Microsurgery is done with the aid of a microscope and infinitesimal needles—some as tiny as two red blood cells. It first was used in the 1960s for amputations, but by the late '70s, surgeons had found other applications, such as the repair of congenital defects. Repairs that were unheard of before the advent of both the microscope and tiny sutures suddenly became possible.

But in 1980, when Van Beek arrived in the Twin Cities, he had to sell the idea of microsurgery, almost as much as his idea for First Care. "When I first came to Minneapolis there was essentially a void in microsurgery. It was a specialty which had really not been brought to the Twin Cities area," he says. He was rebuffed by the first hospital he approached, but North Memorial Medical Center, which already had a large trauma center, was interested in what he could offer.

"We didn't have that microsurgical component," recalls Scott Anderson, North Memorial's president and CEO. Van Beek's work "fit hand in glove with our program in trauma," he says. "We were ready for someone like him to come along."

Today, a number of microsurgeons are on staff at North Memorial, which has a national reputation. And there are microsurgeons at other hospitals, including Van Beek, who is on staff at Hennepin County Medical Center, Abbott Northwestern Hospital, and Fairview Southdale Hospital. He performs about three-fourths of his surgery at North Memorial.

Ironically, Dr. Van Beek's interest in microsurgery evolved out of his experiences in Vietnam, not rural America. He was in Vietnam during the bloody 1968 Tet Offensive, stationed in the Three Corps area in the central part of the country. "I saw hundreds of men under 25 with horrible injuries," he recalls. And they were treated in Vietnam just as soldiers had been treated during the Korean War, the Second World War, and before that. If a soldier had a mangled limb, it was amputated. But Van Beek was working with a hand surgeon who started talking about a new surgery called microsurgery, which potentially could save the limbs of such wounded young men. "He told me that if he were younger, that's what he would go into," Van Beek said.

When Van Beek left Vietnam he took the hand surgeon's advice and studied both plastic and reconstructive surgery. Today, he has developed a reputation in the rural community as the physician who treats farm accident victims. And in 1985, he was honored by the farm community with the Minnesota Farm Bureau's Distinguished Service to Agriculture Award.

Van Beek is a "tireless person," says the Farm Bureau's chief Hagaman. "He'll work all night in an operating room and go out the next morning to teach a First Care course."

Today, rural community doctors are training volunteers to teach the First Care course, but in the beginning, Van Beek was often the one to go out and meet with farm families. "We eventually got to the point where we were running him ragged," Hagaman recalls. "He's truly a servant. He took his oath seriously." ■

TIM RUMMELHOFF

Microsurgeon Allen Van Beek

Allen Van Beek has developed a reputation in the rural community as the physician who treats farm accident victims.

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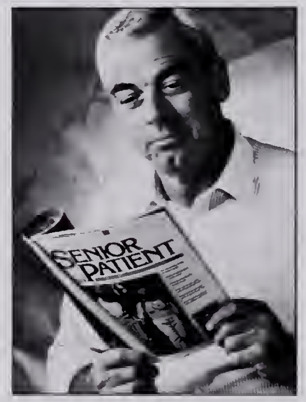

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How Supplied: Oral tablets of Yocon® 1/12 gr. 5.4 mg in bottles of 100's NDC 53159-001-01 and 1000's NDC 53159-001-10.

References:
1. A. Morales et al., New England Journal of Medicine: 1221. November 12, 1981.
2. Goodman, Gilman — The Pharmacological basis of Therapeutics 6th ed., p. 176-188. McMillan December Rev. 1/85.
3. Weekly Urological Clinical letter, 27:2, July 4, 1983.
4. A. Morales et al., The Journal of Urology 128: 45-47, 1982.

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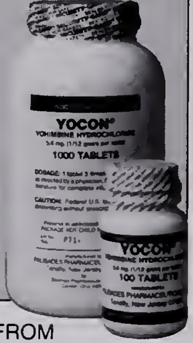

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Job and Life Satisfaction among Rural Physicians

Results of a Survey

William H. Pastor, M.A., M.P.H.; Richard A. Huset, M.D., M.P.H.; and Meng-Chih Lee, M.D., M.P.H.

Results of a survey of approximately half of Minnesota's rural physicians show that these physicians appear to be well-satisfied with their jobs (average rating of 2.5 on a five-point scale with 2 = very satisfied and 3 = moderately satisfied). In aggregate, areas of greatest job satisfaction are the diversity of patients physicians see, physicians' contact with others, and their ability to derive personal gratification from patient care. Salary/income was not a source of dissatisfaction. Areas of least satisfaction are physicians' opportunities for promotion, their ability to remain knowledgeable, and their role in making organizational and administrative decisions.

Rural Minnesota physicians feel least work stress about their feelings of clinical competence/interpersonal relations at work and anxieties about the future. Areas of greatest stress focus on time pressures and realities of medical practice, i.e., being reimbursed by third-party payers and meeting the need for certainty when medical knowledge only allows for approximation. These physicians are reasonably happy with their lives in general (5.4 on a seven-point scale with 7 = delighted, 1 = terrible). In aggregate, areas of lowest life satisfaction are physicians' social relations, leisure activities, and finances. Examination of subgroups shows that women are statistically less satisfied with their living situations; younger physicians are less satisfied with their work, their living situations, and their leisure activities; physicians who spend more than 10 hours per week on administrative duties are less satisfied with their living and social situations; and physicians who see more than 100 patients per week are less satisfied with their social relations.

The maldistribution of physicians is a worldwide problem that particularly plagues rural or geographically isolated areas.[1] Minnesota, however, has addressed, implemented, and continues to maintain a successful physician redistribution plan. The state has an acceptable family physician population ratio of 1:2,500 in all 87 counties, with the majority of counties having a ratio of approximately 1:1,600.[1,2] Nonetheless, the threat of physician maldistribution persists.

Several studies have documented reasons for physician aversion to rural practice.[3,4,5] Explanations include professional and lifestyle preferences. Professional considerations include lack of facilities and resources, professional isolation, inadequate organizational frameworks, overwork, and economic disincentives. Lifestyle preferences, such as excessive demands on the personal life of the provider, poor school systems, fewer cultural opportunities, and spouse influence, avert medical students and physicians away from rural practice.

This study documents the job and life satisfaction of Minnesota rural physicians, measuring job satisfaction, medical work stressors, and life satisfaction of the aggregate of Minnesota rural physicians. In addition, the study identifies statistically significant differences in job and life satisfaction among subgroups by age, gender, specialization, medical practice, amount of time devoted to administrative duties, and the number of patients seen. Policy-related issues addressing training and future disposition of medical manpower, utilization of physician administrative interests, and legislative commitment to rural health needs follow from the results.

Methods

In late February 1988, surveys were mailed to approximately 50% of rural Minnesota physicians.† The random sample of physicians was identified by the Minnesota Medical Association. The selection of "rural" Minnesota counties was provided by the Minnesota Department of Health and included all Minnesota counties except the seven metropolitan counties and the five counties that have towns with a population greater than 50,000. Four weeks after the initial mailing, a follow-up postcard was sent to nonrespondents. Of the 59 questions, 12 asked for demographic information, 13 addressed issues of work satisfaction, 25 focused on medical work stressors, and 9 addressed life satisfaction. The response rate was 66.9% (325/486). Sample bias appeared to be minimal. For example, males composed 91.9% of the sample and 91.1% of the respondents. Table 1 displays comparisons between the sample and respondents by area of

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†The survey instrument was designed by Lawrence Linn, Ph.D., from the Department of Medicine, UCLA Center for the Health Sciences, Los Angeles.

TABLE 1
Comparison between sample and response by selected specializations (%)

Specialization	Sample	Respondents
Medicine	42/467 (9.0%)	33/325 (10.2%)
Pediatrics	20/467 (4.3%)	12/325 (3.7%)
Surgery	42/467 (9.0%)	29/325 (8.9%)
Ob/Gyn	17/467 (4.6%)	12/325 (3.7%)
Ophthalmology	13/467 (2.8%)	7/325 (2.2%)
Dermatology	3/467 (0.6%)	2/325 (0.6%)
Psychiatry	11/467 (2.4%)	10/325 (3.1%)
Family Medicine	264/467 (56.5%)	183/325 (56.3%)

specialization, again illustrating minimal bias.

Respondents who noted their specialization listed urology, laboratory medicine, radiology, preventive medicine, anesthesiology, orthopedics, and pathology. Thirty-six respondents answered "other."

Several respondents elected to include comments in the margins addressing other stressors. These included the problems of dual-career families and child care responsibilities, patient contact through emergency room work, the unique problems of working in a resort town, the "HMO problem," government regulations, and increased malpractice insurance.

Results

Demographic data

The profile of rural Minnesota physicians derived from the 325 respondents shows that 91.1% are male, 92.3% married, and 95.4% Caucasian. Average age is 46.2 years.

Almost half, 47.7%, practice primary care only; 22.8% are in specialty practice and provide no primary care; 55.9% are in a fee-for-service group-practice setting; 11.1% work in a private office with no other physician. Table 2 describes respondents' medical practice, and Table 3 describes their predominant medical setting.

As a group, physicians sampled took approximately 22 vacation days in the past year. They have approximately 48 patient-contact hours per week, seeing on average about 93 patients per week. Approximately seven hours per week are spent on administrative and nonpatient activities.

Job Satisfaction

Table 4 shows responses for the 13-item physician job-satisfaction scale. In general, it appears that respondents are quite satisfied with their work situations.

Respondents indicated greatest satisfaction in the following areas:

- ► The diversity of patients they see,
- ► Their contact with other physicians,
- ► Their ability to derive personal gratification from patient care, and
- ► Their relationships with nonphysician health professionals.

The responses revealed four major areas of overt dissatisfaction:

- ► Opportunities for promotion and/or increasing success in the future,
- ► Their roles in making organizational and administrative decisions,
- ► Their abilities to remain knowledgeable and current, and
- ► The manpower resources available to them.

Following Linn's classification scheme,[6] we categorized the stressors into (I) "clinical competence and interpersonal relations at work," (II) "coming to terms with the realities of medical practice," (III) "anxiety about the future," (IV) "time pressures," and (V) "dealing with difficult patients." Table 5 describes our findings.

The area of greatest stress is Category IV, "time pressures." Category II, "realities of medical practice," follows. Being reimbursed by third-party payers, keeping up with the literature, and not being able to say no to people who ask them to do things are the three major work stressors within these categories.

TABLE 2
Type of medical practice (N = 325)

Medical practice	%	No.
All primary care	47.7%	(155)
Mostly primary care with some specialty practice	17.2%	(56)
About equally divided between primary care and specialty practice	6.5%	(21)
Mostly specialty practice with some primary care	6.8%	(22)
All specialty practice	22.8%	(71)

TABLE 3
Predominant medical setting (N = 325)*

Setting	%	No.
Private office with no other physician	11.1%	(36)
Private office with one or more physicians	13.6%	(44)
Group practice: fee-for-service	55.9%	(181)
Group practice: prepaid	1.2%	(4)
Clinic	7.4%	(24)
Community hospital	5.9%	(19)
Other	4.6%	(15)

*Not all respondents indicated a practice setting.

Categories of least stress are Category I, "clinical competence/interpersonal relations," and Category III, "anxiety about the future." The four areas of least work-associated stress are: worrying about how the growing oversupply of physicians will affect their practice in the future, getting along with other physicians, making good or correct clinical judgments, and making enough money to achieve or maintain a desirable lifestyle.

The final section evaluates components of respondents' lives as a whole using a seven-point scale (Table 6).

Rural Minnesota physicians appear to be least satisfied with their social relations, leisure activities, and finances and most satisfied with their living situations, life in general, family life, and physical health.

Analysis of Subgroups

The null hypothesis would imply that stress is distributed uniformly over demographic and practice variables. When physicians were split into mutually exclusive demographic subgroups and tested statistically, significant ($p < .05$) differences were revealed. The six demographic and practice variables were:

- age: 40 and older vs. less than 40 years of age,
- gender: female vs. male,
- specialization: family practice vs. all others,
- medical practice: primary care vs. specialty practice,
- administrative: physicians who spend 10 or more hours per week on administrative duties vs. those who spend less than 10 hours per week, and
- number of patients: physicians who see 100 or more patients per week vs. those who see fewer than 100 patients per week.

Age: A significantly larger proportion of physicians under age 40 are female and single. Younger physicians tend to enter family practice, whereas surgeons are overrepresented among older physicians. Younger physicians generally practice primary care, compared with older physicians, who tend to be specialists. The data also indicate that younger physicians see more patients than older physicians: Younger physicians average 106 patients per week compared with 90 patients per week for older physicians.

TABLE 4
Distribution of job-satisfaction scale (N = 325)*

Areas of job satisfaction	Number of respondents rating satisfaction at these levels					
	1	2	3	4	5	Mean
Your contact with other physicians	55	155	88	25	2	2.27
Your relationship with non-physician health professionals	35	159	110	20	1	2.36
The degree to which your work is educationally stimulating	36	116	134	31	7	2.56
The manpower resources available to you	21	131	119	47	6	2.65
The diversity of patients you see (age, sex, types of problems and diseases)	67	169	71	16	2	2.13
Patient volume	43	147	106	24	4	2.38
Your ability to derive personal gratification from patient care	71	141	83	23	6	2.23
Salary/income	34	127	119	36	9	2.57
Opportunities for promotion and/or increasing success in your future	18	89	107	83	21	3.0
Your ability to remain knowledgeable and current	16	97	144	61	7	2.83
Your ability to meet the needs and demands of patients	11	151	138	19	6	2.56
Your role in making organizational and administrative decisions	18	104	127	62	13	2.84
The degree of status and prestige associated with your work	41	145	98	31	9	2.45

*Work Satisfaction: 1 = extremely satisfied, 2 = very satisfied, 3 = moderately satisfied, 4 = not very satisfied, 5 = dissatisfied. Not all respondents answered every item.

Time-pressure stressors are the most pronounced of the five work-stressor categories, with statistically significant differences appearing in six of the seven measures. Younger physicians record high stress about:

- their inability to spend time with their friends and families,
- being pulled in several directions at once by the demands of their work,
- being pressured by answering or returning an excessive number of phone calls,
- keeping up with the literature, and
- making decisions about what directions their careers should take.

Older physicians have higher general life satisfaction with their work, their living situations, their leisure activities, and their lives in general compared with their younger counterparts.

Gender: Although a representative sample, only 29 women responded to the questionnaire, compared with 296 men. Thirty-eight women were in the sample.

Very few statistically significant differences in work satisfaction, work stressors, and overall life satisfaction between genders are present by our measures. Demographically, female physicians are more often single and younger than male physicians. Only 29% (8) of women physicians are over 40 years of age compared with 64% (190) of men. By implication, women have been in practice for a shorter time than men. Although not statistically significant, slightly more women are in primary care and slightly more men are in specialty practice. Differences exist in the number of vacation days and in the number of patient-contact hours. Men average 22.3 vacation

TABLE 5
Medical work stressors (N = 325)*

Areas of job satisfaction	Number of respondents reporting these stress levels					
	1	2	3	4	5	Mean
I. Clinical competence/interpersonal relations at work			composite average 3.48			
Maintaining clinical competence	8	49	141	112	14	3.23
Getting along with other physicians in the work setting	8	20	28	206	43	3.79
Maintaining self-confidence	12	45	105	140	23	3.36
Making good or correct clinical judgments	10	22	86	199	8	3.53
II. Realities of medical practice			composite average 2.94			
Meeting society's expectations of high-quality medical care	19	56	137	106	6	3.07
Meeting the need for certainty when current medical knowledge allows for only approximation	21	66	154	78	2	2.92
Keeping my interest in the daily practice of medicine	11	46	117	117	33	3.35
Readjusting long-held expectations regarding medical work to make them consistent with the realities of daily medical practice	20	47	139	108	7	3.11
Being reimbursed by third-party payers for services rendered	83	106	90	34	4	2.27
III. Anxiety about the future			composite average 3.46			
Making decisions about what direction my career should take	21	58	76	128	41	3.34
Worrying about how the growing oversupply of physicians will affect my practice in the future	7	24	69	150	73	3.80
Continuing to derive meaningful intellectual and educational growth at work	10	54	131	116	13	3.31
Making enough money to achieve or maintain a desirable lifestyle	13	55	73	132	51	3.47
Finding opportunity for becoming more successful in the future	11	45	105	128	33	3.39
IV. Time pressures			composite average 2.67			
Finding time to spend with friends or family	57	82	110	69	7	2.65
Being pressured by having to answer and/or return an excessive number of phone calls	75	87	92	62	9	2.52
Being able to relax when given the opportunity	19	59	85	115	46	3.34
Being pulled in several directions at once by the demands of my work	54	111	96	59	4	2.53
Running behind or late when trying to meet a busy work schedule	79	100	100	41	4	2.35
Not being able to say "NO" to people who ask me to do things	23	84	114	92	10	2.94
Keeping up with the literature	54	137	108	25	1	2.33
V. Dealing with difficult patients			composite average 3.04			
Meeting the needs and demands of the patient	19	84	145	74	1	2.86
Having to deal with intensely emotional aspects of patients' lives, such as suffering, sexuality, or death	18	57	126	118	6	3.11
Having to deal with "difficult" or "problem" patients	17	67	167	72	1	2.92
Having enough resources to deal adequately with patients' problems	8	51	112	144	9	3.29

*Work stress experienced: 1 = very often, 2 = often, 3 = sometimes, 4 = not very often, 5 = never.
Not all respondents answered every item.

days per year; women average 21.1 days. Women physicians average 44.5 patient-contact hours per week, whereas men average 47.5 hours.

Analysis of the 13-question work-satisfaction section shows that contact with other physicians is the only area of difference between female and male physicians: Women physicians are less satisfied than their male counterparts.

Within the 25-question problem (stressor) section, finding opportunities for becoming more successful in the future is the only area of difference between the two genders: Women physicians experience this factor as a greater stressor than men physicians. Among the nine-question life-satisfaction section, women feel worse about their living situations and their lives in general than men physicians.

Specialization (family practice vs. other): A significantly greater number of younger physicians (under age 40) currently are in family practice rather than specialties. Data suggest that family practitioners tend to practice in a private office and not in community hospitals. Family practitioners take less vacation and see more patients than specialists (Table 7).

There is no difference between family practitioners and all other specialties in job satisfaction except in salary/income. Here, a greater-than-expected number of family practitioners said they were moderately dissatisfied with their incomes, whereas a greater number than expected among other specialties expressed being very dissatisfied with their incomes.

Problems with work stressors show differences between family practitioners and other specialties in each of the five categories. In three of the four measures of clinical competence/interpersonal relations at work, family practitioners have statistically greater problems than their counterparts. They experience greater stress in maintaining clinical competence, maintaining self-confidence, and making good or correct clinical judgments. Family practitioners experience greater

TABLE 6
Life satisfaction experienced (N = 325)*

Area	Number of respondents reporting satisfaction at each level							
	1	2	3	4	5	6	7	Mean
Your work	0	7	16	64	112	105	19	5.08
Your family life	0	9	19	34	81	134	48	5.40
Your living situation	0	5	16	34	70	155	44	5.50
Your social relations	2	9	31	60	110	96	16	4.91
Leisure activities	6	11	26	65	87	102	28	4.95
Your finances	2	13	22	75	97	90	26	4.93
Your physical health	1	7	13	31	94	121	58	5.48
Your mental health	0	9	22	39	77	135	43	5.34
Your life in general	0	8	13	38	76	162	28	5.40

*Life satisfaction experienced: 1 = terrible, 4 = mixed, 7 = delighted. Not all respondents answered every item.

TABLE 7
Number of vacation days and number of patients seen

Specialty	Vacation days/yr	Patients seen/wk
Family practitioners	21	109
Other specialists	24	76

stress in three of the five measures of realities of medical practice. They experience problems in meeting society's expectations of high-quality medical care, meeting the need for certainty when current medical knowledge allows for only approximation, and being reimbursed by third-party payers for services rendered.

Family practitioners express slightly more difficulty in making enough money to achieve or maintain a desirable lifestyle and finding opportunities for becoming more successful in the future.

They also experience time pressures to a greater degree than physicians in other specialties. They feel stress in having to answer or return an excessive number of phone calls, being pulled in several directions at once by the demands of their work, running late when trying meet a busy schedule, and keeping up with the literature.

In the category "dealing with difficult patients," family practitioners acknowledge greater stress in having to deal with intensely emotional aspects of patients' lives, such as suffering, sexuality, or death, and having to deal with difficult or problem patients.

There are no significant differences in overall life satisfaction between family practitioners and other specialties.

Medical practice (primary care vs. specialty practice): Our results show that primary care physicians generally practice in private offices and fee-for-service group practices. Specialty-care physicians tend to identify their medical practice setting with community hospitals. Primary care physicians see more patients than specialists do.

Primary care physicians are less satisfied with their jobs when compared with their counterparts in their ability to meet patient needs and demands, their role in making organizational and administrative decisions, and the degree of status and prestige associated with their work.

In each of the five work stressor areas, primary care physicians experience more stress than specialty physicians in:

- maintaining clinical competence;
- meeting society's expectations of high-quality medical care;
- making enough money to achieve or maintain a desirable lifestyle;
- having to answer or return phone calls, being pulled in several directions at once by the demands of work, and running late when trying to meet a busy work schedule;
- having to deal with intensely emotional aspects of patients' lives and having to deal with difficult patients.

There were no satistically significant differences in any area within measures recording life satisfaction.

Administrative duties: The type of medical practice is the only area of demographic difference between physicians who spend a large amount of time (more than 10 hours per week) on administrative tasks and those who spend less time on such duties. Active administrator-physicians tend to be in primary care, and physicians taking a smaller administrative role are more typically in specialty care.

Physicians who spend large amounts of time on administrative duties tend to be less satisfied with their contact with other physicians and their abilities to remain knowledgeable and current compared with physicians who spend less time on administrative tasks.

There are no statistical differences in problems or stressors in the categories of "clinical competence/interpersonal relations at work" and "anxiety about the future." Physicians who spend 10 or more hours per week on administrative duties indicated more stress over three of the five time-pressure measures:

- finding time to spend with friends and family,
- being pressured by having to answer or return an excessive number of phone calls, and
- being pulled in several directions at once by the demands of work.

Overall, there are not a great number of differences in life-satisfaction measures between the two physician groups. In two of the nine areas, family life and social relations, however, physicians who spend more time on administrative tasks feel worse than their counterparts.

Number of patients: Physicians who see more than 100 patients per week (high-volume physicians) tend to be younger, in family practice, involved in primary care, and in the fee-for-service sector compared with their counterparts who see fewer patients. There is no statistically significant difference in the number of vacation days taken by each group.

Physicians who see a large number of patients tend to have problems maintaining their self-confidence and being reimbursed by third-party payers compared with physicians who see fewer patients. High-volume physicians exhibit a higher degree of moderate stress dealing with difficult patients. They also recorded stress in four of the seven time-pressure measures.

In general, both groups are satisfied with their lives.

Discussion

The results of this study show that Minnesota's rural physicians appear to be well-satisfied with their jobs (average rating of 2.5 on a five-point scale with 2 = very satisfied and 3 = moderately satisfied). In aggregate, areas of greatest job satisfaction are the diversity of patients physicians see, physicians' contact with others, and their ability to derive personal gratification from patient care. Salary/income was not a source of dissatisfaction. Areas of least satisfaction are physicians' opportunities for promotion, their ability to remain knowledgeable, and their role in making organizational and administrative decisions.

Examination of subgroups shows that when compared with male physicians, women physicians are less satisfied with their contact with other physicians. The degree of status and prestige associated with medical practice is a major source of job dissatisfaction among primary care physicians when matched with specialty-practice physicians.

In aggregate, physicians feel least work stress about their feelings of clinical competence/interpersonal relations at work and anxieties about the future. They sometimes feel stress from having to deal with difficult patients. Areas of greatest stress focus on realities of medical practice and time pressures. Within the category "realities of medical practice," being reimbursed by third-party payers and meeting the need for certainty when medical knowledge only allows for approximation were specific stressors. Time-pressure stressors include: keeping up with the literature, running behind or late, feeling pressure to answer phone calls, and being pulled in several directions at once by work demands.

Stress from time pressures emerged as the dominant stressor between different comparison groups. Younger physicians feel greater time pressures than older physicians, primary care physicians more than specialists, and family practitioners more than other specialists. Physicians who spend more time on administrative tasks and physicians who see a greater number of patients experience greater time pressures than those who spend less time on administrative duties and those who see fewer patients. Division by gender does not show statistically significant differences in time-pressures measures.

Finally, Minnesota rural physicians are reasonably happy with their lives in general (5.4 on a seven-point scale where 7 = delighted). Areas of lowest life satisfaction are physicians' social relations, leisure activities, and finances. On closer examination, women are statistically less satisfied with their living situations; younger physicians are less satisfied with their work, their living situations, and their leisure activities; physicians who spend more than 10 hours per week on administrative duties are less satisfied with their living and social situations; and physicians who see more than 100 patients per week are less satisfied with their social relations. There were no statistically significant differences between primary care physicians and specialists or between family practitioners and other specialists in their life-satisfaction scores.

Linn's[6] review of the literature that addresses dissatisfaction and stress among physicians mentions factors that include: noncompliant and recalcitrant patients, interpersonal problems with non-physician health professionals, fears of malpractice, maintaining clinical competency, keeping up with the literature, time pressures, the financial costs of operating a practice, and excessive paperwork.

Although our study did not test all of these stressors, our data showed that interpersonal problems, competency issues, and difficult patients are not major stressors among Minnesota's rural physicians. Issues addressing time pressures, such as keeping up with the literature and excessive paperwork, are stressors for rural Minnesota physicians.

The difference between perceived disincentives to physicians considering going into rural practice and actual problems physicians have with rural practice is another issue that needs to be addressed. The literature[3,4,5] states several disincentives to physicians considering going into rural practice: lack of adequate facilities and resources, professional isolation, inadequate organizational frameworks, overwork, economic disincentives, excessive demands on the personal life of the provider, lifestyle preferences, and spouse influence.

Although our study did not address disincentives to rural practice, our data show that certain of these disincentives accurately apply to physicians who choose to practice in rural Minnesota while others do not. For example, only 16% of respondents claim dissatisfaction with the manpower resources available to them, with the mode residing on "very satisfied" (145 of 324). Professional isolation and economic hardships do not appear to be sources of dissatisfaction with rural practice in Minnesota. On the other hand, being overworked and having excessive demands placed on their personal lives do appear to be sources of dissatisfaction for rural Minnesota physicians.

Many problems that medical schools, medical societies, and state legislatures need to address emerge from our study. For example, disparity in perceived prestige

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CARDIZEM is contraindicated in (1) patients with sick sinus syndrome except in the presence of a functioning ventricular pacemaker, (2) patients with second- or third-degree AV block except in the presence of a functioning ventricular pacemaker, (3) patients with hypotension (less than 90 mm Hg systolic), (4) patients who have demonstrated hypersensitivity to the drug, and (5) patients with acute myocardial infarction and pulmonary congestion documented by x-ray on admission.

WARNINGS

1. **Cardiac Conduction.** CARDIZEM prolongs AV node refractory periods without significantly prolonging sinus node recovery time, except in patients with sick sinus syndrome. This effect may rarely result in abnormally slow heart rates (particularly in patients with sick sinus syndrome) or second- or third-degree AV block (nine of 2,111 patients or 0.43%). Concomitant use of diltiazem with beta-blockers or digitalis may result in additive effects on cardiac conduction. A patient with Prinzmetal's angina developed periods of asystole (2 to 5 seconds) after a single dose of 60 mg of diltiazem.
2. **Congestive Heart Failure.** Although diltiazem has a negative inotropic effect in isolated animal tissue preparations, hemodynamic studies in humans with normal ventricular function have not shown a reduction in cardiac index nor consistent negative effects on contractility (dp/dt). An acute study of oral diltiazem in patients with impaired ventricular function (ejection fraction 24% ± 6%) showed improvement in indices of ventricular function without significant decrease in contractile function (dp/dt). Experience with the use of CARDIZEM (diltiazem hydrochloride) in combination with beta-blockers in patients with impaired ventricular function is limited. Caution should be exercised when using this combination.
3. **Hypotension.** Decreases in blood pressure associated with CARDIZEM therapy may occasionally result in symptomatic hypotension.
4. **Acute Hepatic Injury.** Mild elevations of transaminases with and without concomitant elevation in alkaline phosphatase and bilirubin have been observed in clinical studies. Such elevations were usually transient and frequently resolved even with continued diltiazem treatment. In rare instances, significant elevations in enzymes such as alkaline phosphatase, LDH, SGOT, SGPT, and other phenomena consistent with acute hepatic injury have been noted. These reactions tended to occur early after therapy initiation (1 to 8 weeks) and have been reversible upon discontinuation of drug therapy. The relationship to CARDIZEM is uncertain in some cases, but probable in some. (See PRECAUTIONS.)

PRECAUTIONS

General. CARDIZEM (diltiazem hydrochloride) is extensively metabolized by the liver and excreted by the kidneys and in bile. As with any drug given over prolonged periods, laboratory parameters should be monitored at regular intervals. The drug should be used with caution in patients with impaired renal or hepatic function. In subacute and chronic dog and rat studies designed to produce toxicity, high doses of diltiazem were associated with hepatic damage. In special subacute hepatic studies, oral doses of 125 mg/kg and higher in rats were associated with histological changes in the liver which were reversible when the drug was discontinued. In dogs, doses of 20 mg/kg were also associated with hepatic changes; however, these changes were reversible with continued dosing.

Dermatological events (see ADVERSE REACTIONS section) may be transient and may disappear despite continued use of CARDIZEM. However, skin eruptions progressing to erythema multiforme and/or exfoliative dermatitis have also been infrequently reported. Should a dermatologic reaction persist, the drug should be discontinued.

Drug Interaction. Due to the potential for additive effects, caution and careful titration are warranted in patients receiving CARDIZEM concomitantly with any agents known to affect cardiac contractility and/or conduction. (See WARNINGS.) Pharmacologic studies indicate that there may be additive effects in prolonging AV conduction when using beta-blockers or digitalis concomitantly with CARDIZEM. (See WARNINGS.)

As with all drugs, care should be exercised when treating patients with multiple medications. CARDIZEM undergoes biotransformation by cytochrome P-450 mixed function oxidase. Coadministration of CARDIZEM with other agents which follow the same route of biotransformation may result in the competitive inhibition of metabolism. Dosages of similarly metabolized drugs, particularly those of low therapeutic ratio or in patients with renal and/or hepatic impairment, may require adjustment when starting or stopping concomitantly administered CARDIZEM to maintain optimum therapeutic blood levels.

Beta-blockers: Controlled and uncontrolled domestic studies suggest that concomitant use of CARDIZEM and beta-blockers or digitalis is usually well tolerated, but available data are not sufficient to predict the effects of concomitant treatment in patients with left ventricular dysfunction or cardiac conduction abnormalities.

Administration of CARDIZEM (diltiazem hydrochloride) concomitantly with propranolol in five normal volunteers resulted in increased propranolol levels in all subjects and bioavailability of propranolol was increased approximately 50%. If combination therapy is initiated or withdrawn in conjunction with propranolol, an adjustment in the propranolol dose may be warranted. (See WARNINGS.)

Cimetidine: A study in six healthy volunteers has shown a significant increase in peak diltiazem plasma levels (58%) and area-under-the-curve (53%) after a 1-week course of cimetidine at 1,200 mg per day and diltiazem 60 mg per day. Ranitidine produced smaller, nonsignificant increases. The effect may be mediated by cimetidine's known inhibition of hepatic cytochrome P-450, the enzyme system probably responsible for the first-pass metabolism of diltiazem. Patients currently receiving diltiazem therapy should be carefully monitored for a change in pharmacological effect when initiating and discontinuing therapy with cimetidine. An adjustment in the diltiazem dose may be warranted.

Digitalis: Administration of CARDIZEM with digoxin in 24 healthy male subjects increased plasma digoxin concentrations approximately 20%. Another investigator found no increase in digoxin levels in 12 patients with coronary artery disease. Since there have been conflicting results regarding the effect of digoxin levels, it is recommended that digoxin levels be monitored when initiating, adjusting, and discontinuing CARDIZEM therapy to avoid possible over- or under-digitalization. (See WARNINGS.)

Anesthetics: The depression of cardiac contractility, conductivity, and automaticity as well as the vascular dilation associated with anesthetics may be potentiated by calcium channel blockers. When used concomitantly, anesthetics and calcium blockers should be titrated carefully.

Carcinogenesis, Mutagenesis, Impairment of Fertility. A 24-month study in rats and a 21-month study in mice showed no evidence of carcinogenicity. There was also no mutagenic response in in vitro bacterial tests. No intrinsic effect on fertility was observed in rats.

Pregnancy. Category C. Reproduction studies have been conducted in mice, rats, and rabbits. Administration of doses ranging from five to ten times greater (on a mg/kg basis) than the daily recommended therapeutic dose has resulted in embryo and fetal lethality. These doses, in some studies, have been reported to cause skeletal abnormalities. In the perinatal/postnatal studies, there was some reduction in early individual pup weights and survival rates. There was an increased incidence of stillbirths at doses of 20 times the human dose or greater.

There are no well-controlled studies in pregnant women; therefore, use CARDIZEM in pregnant women only if the potential benefit justifies the potential risk to the fetus.

Nursing Mothers. Diltiazem is excreted in human milk. One report suggests that concentrations in breast milk may approximate serum levels. If use of CARDIZEM is deemed essential, an alternative method of infant feeding should be instituted.

Pediatric Use. Safety and effectiveness in children have not been established.

ADVERSE REACTIONS

Serious adverse reactions have been rare in studies carried out to date, but it should be recognized that patients with impaired ventricular function and cardiac conduction abnormalities have usually been excluded from these studies.

The adverse events described below represent events observed in clinical studies of hypertensive patients receiving either CARDIZEM Tablets or CARDIZEM SR Capsules as well as experiences observed in studies of angina and during marketing. The most common events in hypertension studies are shown in a table with rates in placebo patients shown for comparison. Less common events are listed by body system; these include any adverse reactions seen in angina studies that were not observed in hypertension studies. In all hypertensive patients studied (over 900), the most common adverse events were edema (9%), headache (8%), dizziness (6%), asthenia (5%), sinus bradycardia (3%), flushing (3%), and 1° AV block (3%). Only edema and perhaps bradycardia and dizziness were dose related. The most common events observed in clinical studies (over 2,100 patients) of angina patients and hypertensive patients receiving CARDIZEM Tablets or CARDIZEM SR Capsules were (ie, greater than 1%) edema (5.4%), headache (4.5%), dizziness (3.4%), asthenia (2.8%), first-degree AV block (1.8%), flushing (1.7%), nausea (1.6%), bradycardia (1.5%), and rash (1.5%).

DOUBLE BLIND PLACEBO CONTROLLED HYPERTENSION TRIALS

Adverse	Diltiazem N=315 # pts (%)	Placebo N=211 # pts (%)
headache	38 (12%)	17 (8%)
AV block first degree	24 (7.6%)	4 (1.9%)
dizziness	22 (7%)	6 (2.8%)
edema	19 (6%)	2 (0.9%)
bradycardia	19 (6%)	3 (1.4%)
ECG abnormality	13 (4.1%)	3 (1.4%)
asthenia	10 (3.2%)	1 (0.5%)
constipation	5 (1.6%)	2 (0.9%)
dyspepsia	4 (1.3%)	1 (0.5%)
nausea	4 (1.3%)	2 (0.9%)
palpitations	4 (1.3%)	2 (0.9%)
polyuria	4 (1.3%)	2 (0.9%)
somnolence	4 (1.3%)	—
alk phos increase	3 (1%)	1 (0.5%)
hypotension	3 (1%)	1 (0.5%)
insomnia	3 (1%)	1 (0.5%)
rash	3 (1%)	1 (0.5%)
AV block second degree	2 (0.6%)	—

In addition, the following events were reported infrequently (less than 1%) or have been observed in angina trials. In many cases, the relation to drug is uncertain.

Cardiovascular:	Angina, arrhythmia, bundle branch block, tachycardia, ventricular extrasystoles, congestive heart failure, syncope.
Nervous System:	Amnesia, depression, gait abnormality, hallucinations, nervousness, paresthesia, personality change, tinnitus, tremor, abnormal dreams.
Gastrointestinal:	Anorexia, diarrhea, dysgeusia, mild elevations of SGOT, SGPT, and LDH (see hepatic warnings), vomiting, weight increase, thirst.
Dermatological:	Petechiae, pruritus, photosensitivity, urticaria.
Other:	Amblyopia, CPK increase, dyspnea, epistaxis, eye irritation, hyperglycemia, sexual difficulties, nasal congestion, nocturia, osteoarticular pain, impotence, dry mouth.

The following postmarketing events have been reported infrequently in patients receiving CARDIZEM: alopecia, gingival hyperplasia, erythema multiforme, and leukopenia. Definitive cause and effect relationship between these events and CARDIZEM therapy cannot yet be established.

Issued 1/89

References: 1. Staessen J, Fagard R, Lignen P, et al: *Pract Cardiol* 1986;12(5):55-65. **2.** Massie B, MacCarthy EP, Ramanathan KB, et al: *Ann Intern Med* 1987;107(2):150-157. **3.** Weir MR, Josselson J, Giard MJ, et al: *Am J Cardiol* 1987;60:36I-41I. **4.** Frishman WH, Zawada ET Jr, Smith LK, et al: *Am J Cardiol* 1987;59:615-623. **5.** Pool PE, Seagren SC, Salel AF: *Am J Cardiol* 1985;56:86H-91H. **6.** Pool PE, Seagren SC, Salel AF: *Cardiol Board Rev* 1986;3(10):77-91. **7.** Sunderrajan S, Reams G, Bauer JH: *Hypertension* 1986;8:238-242. **8.** Amodeo C, Kobrin I, Ventura HO, et al: *Circulation* 1986;73(1):108-113. **9.** Schulte K-L, Meyer-Sabellek WA, Haertenberger A, et al: *Hypertension* 1986;8:859-865.

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between family practitioners and specialists must be addressed in medical schools. Women physicians' dissatisfaction with their contact with other physicians needs attention by medical societies. If the Legislature is interested in maintaining an adequate supply of physicians in rural Minnesota, it must address the reimbursement problem. In addition, since remaining knowledgeable and current in their fields is a recurrent problem for rural physicians, the Legislature should increase its commitment to the flow of medical information to rural physicians. A framework for this already exists[7] through the use of computers.

Other areas that require attention are the lack of opportunities for promotion and rural physicians' lack of access to organizational decision making. There may be a reservoir of untapped resources waiting to be discovered. A great deal of empirical evidence demonstrates that physicians enjoy and render programs successful when they play a role in organizational and administrative decisions.[8]

It is our hope that the data provided by our study will provide the information for appropriate action.

Acknowledgments

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William Pastor is a recent graduate of the University of Minnesota's School of Public Health. This study was conducted while he was a graduate student. Currently, he works for the New York City Department for the Aging as a long-term care specialist, researcher, and policy analyst.

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References

1. Verby JE: Physician redistribution: A worldwide medical problem. Family Practice—An International Journal, Oxford University Press; 2(3):151-159, 1985.

2. Verby JE: Medical education of the future—A prototype. Minn Med 70:31-32, 1987.

3. Rosenblatt RA, Moscovice IS: Rural Health Care. John Wiley & Sons, Inc. 86-87, 1982.

4. Taylor M, Dickman W, Kane R: Medical students' attitudes toward rural practice. J Med Ed 48:885-895, 1973.

5. Kane R, Dean M, Solomon M: An evaluation of rural health care research. Evaluation Quarterly 3(2):139-189, 1979.

6. Linn LS: Health status, job satisfaction, job stress, and life satisfaction among academic and clinical faculty. JAMA 254(19):2775-2782, 1985.

7. Foreman G, Wulff Y, Verby J: Rural physician associates—An information service for Rural Physician Associate Program students. Minn Med 59:200-202, 1976.

8. Mittlemark M, Luepker R, Grimm R, Kottke T, Blackburn H: The role of physicians in a communitywide program for prevention of cardiovascular disease: The Minnesota Heart Health Program. Public Health Reports 103(4):360-366, 1988.

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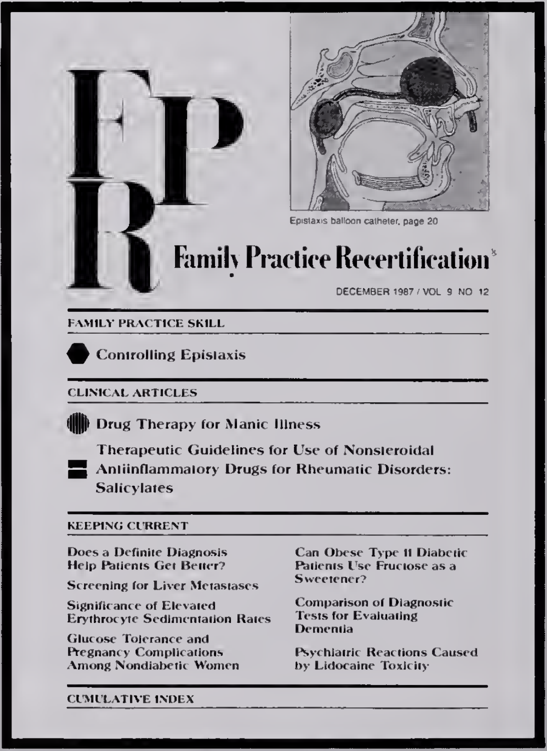

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Community Health Centers and the Rural Economy

The Struggle for Survival

Joint Rural Task Force of the National Association of Community Health Centers and the National Rural Health Association

As economic decline in many rural areas of this nation has resulted in a significant increase in the number of unemployed and uninsured persons, community health centers (CHCs) are playing an increasingly important role in serving the health care needs of rural communities. However, in caring for the increasing number of indigent persons, rural health centers find themselves facing their own economic uncertainty: Costs of care are rising while collections from patients and payers, and federal grant dollars, have not kept pace. These CHCs had been placed in medically underserved areas, usually those too poor or too remote to attract sufficient numbers of private physicians. The centers serve all members of the community who need their care: the insured and uninsured, the middle class, and the poor. Federal grant funds subsidize services for those too poor to pay, and no one is turned away because of inability to pay.

To measure the impact of these changes on the centers' finances (and thus their ability to survive) and to study the relative importance of various factors on that impact, the Joint Rural Health Task Force of the National Association of Community Health Centers (NACHC) and the National Rural Health Association (NRHA) commissioned a study. The project sought to answer:

► How great an impact has the rural economic decline had on the financial position of the nation's 284 rural centers?

► What is causing the impact?

- Overall increases in demand for care?
- Increased demand for care from those poor people who formerly used providers or who previously lacked access to care?
- Decreased ability of the centers' own users to pay for their care either through insurance or out of pocket?
- Increased costs beyond those created by increased demand?

Data available from the study, which was conducted by Northwest Health Services of Mound City, Missouri, make it possible to answer these questions. The project further provides a source of baseline data to identify economic trends, problems, and opportunities.

Rural Economic Decline

The economic standing of rural CHCs has declined between 1986 and 1987. Overall, CHCs' cash positions decreased by $28,711,000.

► Operating expenses were up 14%, due mainly to an increased demand for the CHCs' health services.

► Sliding fee expenses (subsidies) for uninsured patients too poor to pay their bills were up 11%.

► Bad debts increased 25%.*

► Accounts receivable were up 6%.*

► Collections were up 11%, partially as a result of more rigorous billings and collections practices.

► Federal grants rose by 11% ($19,827,000), which helped significantly but did not cover the shortfall.

Figure 1 displays the financial pressures behind the cash deficit. The cash deficit is of particular concern because the survey results point to further downward pressure on revenues and increases in sliding fee expenses.

Causes of the Impact

The financial forces affecting rural centers include a combination of external and internal variables that are closely interrelated. Driven by the decline in rural economic conditions, centers are burdened by an increase in charity care and reduced cash flow. The factors contributing to the situation are:

► An increase in demand for the centers' services, and the new patients who began using the center were more likely to be those requiring subsidies (i.e., those below 200% of the poverty income level). The centers served 7.8% more people in 1987 than in 1986. Growth was heavy in the core or essential medical services, up 10%. In fact, many centers reduced other services: patients receiving "other health" (e.g., nutrition education, transportation) declined 12%. Of the new patients, 83% had no public (e.g., Medicare) or private (e.g., Blue Cross/Blue Shield) insurance and lacked income sufficient to cover their medical costs.

► The centers' own patients were less able to pay for their care than

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*"Accounts receivable" become "bad debts" when the center determines, based upon sound collection policies, that particular bills are unlikely to be paid. In either case, they represent cash that will not be available to meet the center's expenses.

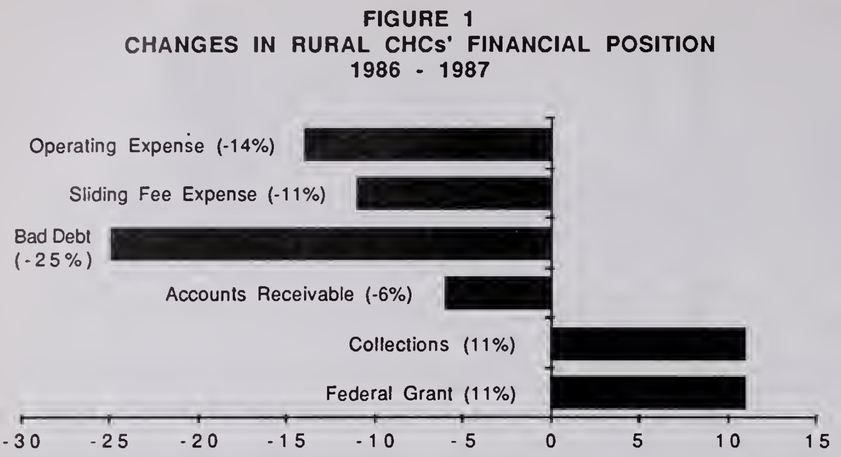

FIGURE 1 - Changes in rural CHCs' financial position, 1986-87. (1) Sliding Fee Expense: The amount billed after application of a discount ("sliding fee") available to those patients with incomes below 200% of the poverty income level. (2) Collections: Payments from patients and public and private insurers.

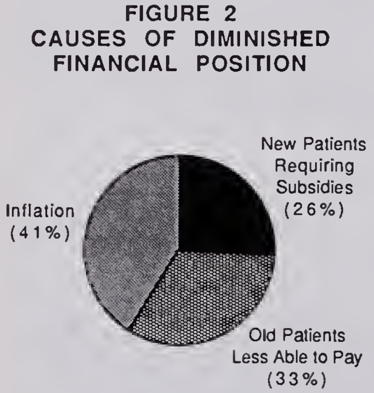

FIGURE 2 - Causes of diminished financial position.

formerly. Of the 12% increase in sliding-fee-scale users, 55% were established patients who previously paid with insurance or cash. These people had either lost their insurance through unemployment or through financially vulnerable employers who reduced their health insurance, or else they no longer had the cash income to pay their medical bills. The shift occurred despite the centers tightening eligibility for sliding fees and more aggressive billing procedures.

► The centers are faced with increased operating costs due to inflation and larger premiums for malpractice insurance. When the effects of increased demand are eliminated, the centers must still pay increased operating costs of 5.75%. Since this is less than the "physician services" component of the Consumer Price Index, which rose 6.3% from December 1986 to December 1987, we can infer that the centers are controlling costs somewhat more successfully than private physicians.

Figure 2 displays the relative importance of these factors on the centers' financial positions.

Conclusion

Rural community health centers are ailing. Since many were deliberately located in areas with populations lacking sufficient financial resources to access health care, any downturn in the economy will adversely affect patients' ability to pay. CHCs' financial conditions are worsening as their annual losses continue to grow. Squeezed between rising costs and declining revenues, the rural community health center has few remaining alternatives other than to reduce patient services, eliminate the already meager capital investment, and raise eligibility requirements for sliding-fee-scale patients. Executive directors responding to survey questions regarding these alternatives indicated they were already cutting services, capital equipment replacement, and operating expenses through personnel layoffs and supply reductions. They were particularly concerned about their ability to recruit and retain physicians and other medical personnel. They were unanimous in their belief that service reductions and higher charges will only mean health care access will worsen.

In order to address the emerging crisis in access to health care for rural residents, especially low-income families, identified in this report, it is recommended that:

1) Congress recognize the impact of the rural economy on health centers by increasing appropriations for centers to help offset losses and maintain access to care in rural areas.

2) Medicare and Medicaid reimbursement policy should assure that these government insurance programs are paying centers the cost of care for their beneficiaries. This will assure that federal Public Health Service grant dollars are not subsidizing Medicare and Medicaid but are, in fact, subsidizing only care for the uninsured.

3) Federal policy direction to enhance Medicaid coverage for uninsured persons should be fostered with special emphasis on unique rural circumstances.

This December 1988 summary report was prepared by the National Association of Community Health Centers and the National Rural Health Association and is reprinted with their permission.

LAWRENCE M. POSTON, M.D.

A Day at the Capitol

Participation in the political process was a reality for a dedicated group of Minnesota physicians and auxilians on February 16, 1989. On that day, the Minnesota Medical Association and the MMA Auxiliary co-sponsored "A Day at the Capitol."

The event began at the Sheraton Midway Hotel in St. Paul with registration and lunch. The program included remarks and presentations by a number of participants.

Helen Walser, president of the MMA Auxiliary, outlined the work of its statewide group to encourage physicians' spouses to participate in the legislative process.

Maureen Beuning, chair of the auxiliary's legislative committee, expanded on that to include work in the lobbying process carried out in conjunction with our own MMA legislative effort.

Stuart Hanson, M.D., provided an overview of our legislative program from his perspective as chair of the MMA Committee on Legislation.

The group listened to remarks from two leaders of our Minnesota Senate. Roger Moe, DFL majority leader, and Duane Benson, IR minority leader, provided us with interesting commentary on a number of legislative issues of concern to physicians, from the perspective of the lawmaker, rather than that of the doctor. They both indicated approval of our participation in the legislative process as helpful, indeed as essential, to the development of appropriate laws relating to the delivery of health care in our state. Their discussions did underscore that political priorities do not always coincide with medical interests, and that fact makes our dialogue critical to good public policy.

Robert McAfee, M.D., a member of the AMA Board of Trustees, provided an update on the status of the resource-based relative value scale (RBRVS). He detailed the progress of that Harvard study through the evaluation phase and eventual conditional approval by the AMA. He discussed the subsequent review of the RVS by the Physician Payment Review Commission, the group established by the U.S. Congress to make recommendations regarding possible changes to the Medicare/Medicaid reimbursement process. At this time, the fate of the RBRVS concept remains speculative. Dr. McAfee suggested that if the proposal is implemented at all, it will be phased in over a period of years and will be subject to multiple federal budgetary factors.

"Political priorities do not always coincide with medical interests, and that fact makes our dialogue critical to good public policy."

A member of the AMA Council on Legislation, Dr. Ken Viste, from our neighboring state of Wisconsin, made the final presentation of the formal program. His message stressed the importance of physician involvement in political action. His personal effort and experience in politics from the grassroots to the national level, while he continued to practice neurology, could serve as a model for us all.

The remaining part of the day was spent at the Capitol. Physicians and auxilians met individually with their own legislators to discuss issues of concern. Some of our members provided screening for glaucoma and measurement of serum cholesterol, available to all legislators and participants in the day's activities.

Many of us observed the House of Representatives in session from the spectators' gallery. By coincidence, that body was giving final consideration to the "living will" bill, one of MMA's priority issues this session. The bill was eventually approved in a form satisfactory to all who have sought enactment of such legislation for the past several years.

Still another legislative highlight of the day was the action taken by the House Health and Human Services Committee. That group defeated House File 217, a bill that would have expanded the scope of practice for optometrists to include elements of medical practice. That defeat was hailed as a major victory for medicine. The favorable outcome is an example of the effectiveness of a concerted effort of physicians and our skilled MMA legislative staff.

Business was done, information was exchanged, friendships were strengthened, and acquaintances were made between legislators and doctors and auxilians. The Day at the Capitol was acclaimed to be a success by all who participated.

continued

But the success was a limited one. About 150 doctors and spouses were registered for the day's activities. There are 134 members of the House of Representatives and 67 members of the Senate, 201 legislators. Most of them were at the Capitol that day. Many of you were not!

Your participation in the political process is needed. Your financial support of MEDPAC is critical. Seek out your local representatives, get to know them personally, discuss medical issues with them, consider acting as a legislative contact with them for MMA, support them if you can, defeat them if you will, but be involved. Politics will continue to affect the way we practice medicine, so we must affect politics.

Consider a Day at the Capitol for yourself next time. ■

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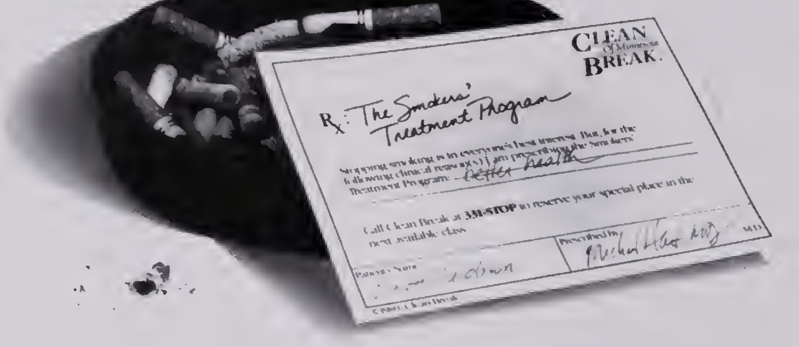

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HHS Inspector General's 'Safe Harbors' May Be Stormier than You Think

Chuck Benda

On the surface, it would appear that nothing but smooth sailing will arise from the inspector general's proposed regulations supplementing the fraud and abuse anti-kickback provisions of the Social Security Act of 1972. After all, what could be less threatening than rules that simply set forth payment practices that do *not* violate the anti-kickback provisions of the Social Security Act?

The inspector general's report, published in the *Federal Register,* reads as if the people in the Department of Health and Human Services (HHS) are doing physicians a favor. If the response from physicians at the grassroots level is any indication, it may be that a majority of physicians concur. In 1987, when the inspector general published a notice of intent to develop these regulations, only 137 comments were received during the allotted response time. The American Medical Association has been, on the whole, supportive of the proposed rules, according to Steve Carter, chief executive officer of the Minnesota Medical Association. Unless some unforeseen storm blows in over the horizon, it looks as if the rules will be adopted within the next few months pretty much as they stand.

In spite of the seemingly benevolent nature of these proposed regulations, there are those who read the winds a bit differently. Among them is David Strand, a health care attorney and chair of the National Health Care Practice Group for the Minneapolis office of Popham, Haik, Schnobrich & Kaufman, Ltd.

"There has been a definite trend in recent years toward restricting all physician ownership of *any* entity to which they refer Medicare patients. These rules are the next step in that direction," says Strand, who has carefully monitored such regulations during his eight-year career in health care law. "If I were a physician, I'd be concerned about it."

"The real concern here is that we're rapidly approaching a time when doctors will not be able to ever refer Medicare patients to facilities where they have an ownership interest."

The new rules supposedly make it easier for physicians to comply with the Medicare fraud and abuse laws by clarifying what has been a broad, unwieldy law. However, the real effect of these new rules, according to Strand, is that they may expose physicians to a greater risk of disciplinary action and place the burden of proof of compliance on the physician.

"You've got to view the proposed rules in light of past practice," Strand says. "With the broad interpretation of the laws in the past, enforcement was unlikely except in the most egregious situations. If the 'safe harbors' proposed by the inspector general go into effect, physicians will have to be more careful to comply with these rules in every business transaction, or they will be subject to civil or criminal prosecution. And if you're outside the safe harbor, you can be sure the transaction will be presumed to violate the rules. The real concern here is that we're rapidly approaching a time when doctors will not be able to ever refer Medicare patients to facilities where they have an ownership interest."

The original anti-kickback law dates back to the birth of the entire Medicare and Medicaid program, included in the Social Security Act of 1972. The fraud and abuse anti-kickback portion of that act provided for "criminal penalties for individuals or entities that knowingly and willfully offer, pay, solicit, or receive remuneration in order to induce business reimbursed under the Medicare or state health care programs." Violators were guilty of a felony and could be fined up to $25,000 or imprisoned up to five years.

The all-encompassing scope of that law became clear in 1985 when the Third Circuit Court of Appeals ruled on payments between providers and referring physicians. In *United States v. Greber,* the court held that if even one purpose for such a payment was to induce future referrals, the physician would be in violation of the fraud and abuse anti-kickback provisions.

"That was such a broad view of the law that physicians and other health care providers suddenly wondered what activity they could possibly engage in without violating the law," says Strand. "There was no way a lawyer could give a physician a clear opinion on a proposed business arrangement. All we could offer was our best guess."

The Medicare and Medicaid Patient and Program Protection Act of 1987 added two important new provisions to the fraud and abuse anti-kickback laws. First, the act established an intermediate penalty, short of criminal prosecution: If a physician or health care entity is found guilty of violating the statutes, the inspector general can prohibit the individual or entity from future participation in Medicare or Medicaid programs. Second, the act stipulated that the HHS inspector general would clarify the existing law by developing regulations and setting forth permissible activities.

> **"The laws are becoming so restrictive, physicians may soon be forced to choose whether they're going to be involved in the health care profession as owners or as physicians."**

In 1988, the Medicare Catastrophic Coverage Act further restricted referrals in connection with home IV therapy. Under the act, physicians will not be allowed to refer Medicare patients needing IV therapy services to a health care entity in which the physician has any ownership interest whatsoever—other than stock in a publicly traded company.

Before that time, the Social Security Act prohibited physicians from referring patients to home health care entities in which the physician had more than a five-percent ownership interest.

It is on the heels of this series of regulations that the HHS inspector general proposes the rules establishing "safe harbors." Although these rules are too detailed to list here (a complete copy can be obtained by writing to the Office of Inspector General, Department of Health and Human Services, Room 5246, 330 Independence Avenue SW, Washington, DC 20201), generally, they provide narrow safe harbors in the following areas:

- ► investment interests,
- ► space rental,
- ► equipment rental,
- ► personal services and management contracts,
- ► sale of practice,
- ► referral services,
- ► warranties,
- ► discounts,
- ► employees,
- ► group purchasing organizations.

"The interesting thing about the investment interest rules is that in the original draft of the rules (published on December 23, 1989, but immediately withdrawn), there was an exception or 'safe harbor' for limited partnership interests," Strand says. "That safe harbor was omitted somewhere between the original draft and the newly published version."

Although Strand says the proposed rule changes are important and should be scrutinized by physicians who are dealing with Medicare dollars, it is the rule regarding investment interests that he thinks should be of particular concern. As it now stands, this segment of the rule provides a safe harbor only if the investment interest is in a corporation that has:

- ► total assets exceeding $5,000,000, and
- ► a class of equity security held by at least 500 persons.

"You may have a patient who legitimately needs a CT scan," says Strand, "and if you own $5,000 worth of that $1 million machine, you won't be able to refer a patient to that partnership without being at risk of civil or criminal prosecution. It's become clear that the inspector general is taking a very hard line.

"But there is a good side to these rules, too. Before, the law was so general that nearly everything you did was a potential violation. Now, there are some clear rules to follow. . . but if you don't follow them, the burden of proof is probably going to be yours. So you better be absolutely certain you're working within those safe harbors."

If and when the new rules go into effect, Strand recommends that any physician who refers Medicare or Medicaid patients ensure that all arrangements comply with the safe harbor stipulations.

"I know it sounds suspicious coming from a lawyer," Strand adds, laughing, "and I hate to say it, but if I were a physician considering a potential business arrangement that involved Medicare patients, I wouldn't enter into the arrangement without having a legal review."

According to the inspector general, a safe harbor *may* still be considered for a limited partnership. However, if such a provision is not included, the new rules will have a significant impact on the bottom line for many physicians, since it may effectively eliminate their ability to refer Medicare patients to limited partnerships in which they have any ownership.

While the health care community is busy pondering the proposed safe harbors, the inspector general is already off and running in another direction that very well may further restrict physician investment opportunities. A little-known clause in the same legislative act required the inspector general to conduct a study of physician referrals to entities in which they held an ownership interest and to deliver a report to Congress by May 1, 1989, calling for further regulation if necessary. The study will:

- ► Describe all physician ownership and compensation arrangements and the means by which they are marketed to physicians;
- ► Evaluate the potential of such arrangements to influence physician decision making and result in inappropriate utilization;
- ► Assess the practical difficulties involved in enforcement actions under current anti-kickback provisions; and
- ► Recommend possible changes in the law to strengthen protections against program abuse.

The inspector general's hard line

may be drawn even tighter around referral practices once this study is submitted. For example, the Medicare Catastrophic Coverage Act, which called for this study, stated in part, "Because of the resulting economic alliance [arising from limited partnerships, etc.], physicians are less likely to exercise independent judgment in making referral recommendations. Moreover, such alliances pose a risk of inducing over-utilization even if the physician's income does not vary in proportion to the number of referrals made."

If that report doesn't lead to tighter controls, there is still the possibility of independent legislation achieving the same goal. For example, in 1988, Rep. Pete Stark, D-Calif., introduced HR 5198 (the Ethics in Patient Referrals Act), which, according to Strand, is a bill that would have virtually eliminated all physician investments, such as limited partnerships. Stark plans to push the bill forward in 1989.

Strand sees all of these developments as part of a disturbing trend that undermines the professional integrity of physicians and forces them to make choices that do not necessarily ensure the delivery of high-quality, cost-effective health care.

"I simply don't believe that a referral to an entity in which a physician has an ownership interest means the referral was unnecessary or is evidence of over-utilization," Strand says. "That assumes that physicians make their medical decisions based on reasons other than the best interest of their patients. I don't buy that assumption.

"The laws are becoming so restrictive, physicians may soon be forced to choose whether they're going to be involved in the health care profession as owners or as physicians.

"Medicare is getting to be more and more expensive. And as costs continue to climb, the government is going to continue to look for ways to reduce utilization. They think enacting restrictions like these is the way to do that."

Strand obviously believes otherwise, and he encourages physicians to make their feelings known to Congress, either through letters or telephone calls.

"Sure, there have been some abuses of the Medicare system by some doctors," Strand says. "But because Congress can't figure out a way to identify those physicians or how they've managed to circumvent the fraud and abuse rules, they're going to restrict everybody."

This article was provided by the Minneapolis law office of Popham, Haik, Schnobrich & Kaufman, Ltd.

Chuck Benda is a free-lance writer living in Hampton, Minnesota.

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New Clinical Laboratory Standards

Recently, Congress passed legislation that establishes laboratory certification standards for all clinical laboratories and for laboratories providing cytology services. The new law affects all laboratories providing biological, microbiological, serological, chemical, immunohematological, hematological, biophysical, cytological, pathological, or other examinations of materials derived from the diagnosis, prevention, or treatment of any disease, or impairment or assessment of human health. Following is a summary of the new law.

Certification Requirements

The secretary of the Department of Health and Human Services (HHS) is authorized to issue certificates to clinical laboratories. Certificates will be issued or reissued for periods of up to two years upon presentation of an application indicating compliance with the provisions of the new law. The application must describe the characteristics of the examinations and other procedures performed by the laboratory, including:

- ► the number and types of examinations and other procedures performed,
- ► the methodologies for examinations and other procedures employed, and
- ► the qualifications ("educational background, training, and experience") of the personnel directing and supervising the laboratory and performing the examination and other procedures.

If a laboratory changes its operation so that the application information must be modified, it will have up to six months to make a change in the application.

Certificates of Waiver

Laboratories that only provide services characterized as "simple laboratory examinations" that have "an insignificant risk of erroneous result," may apply to the HHS secretary for a certificate of waiver. Waiver laboratories will be exempt from proficiency testing requirements, other standards, and inspections. (Information required on the application for a certificate of waiver is similar to the application for a certificate. Procedures for reapplication also are similar.)

The HHS secretary is to determine the examinations and procedures that a waiver laboratory can perform. Minimally, this will include those examinations and procedures that:

- ► have been approved by the Food and Drug Administration for home use;
- ► employ simple and accurate methods that make erroneous results unlikely; or
- ► the secretary determines pose no reasonable risk of harm to a patient even if performed incorrectly.

Accreditation

Laboratories may elect to have their certificate provided through a private accreditation mechanism. Accredited laboratories will be required to meet standards established by accrediting agencies that are at least as stringent as those established for certification. Accredited laboratories also will be subject to inspections by qualified inspectors working for the accrediting agency at a frequency determined by the HHS secretary.

Where the secretary initiates the process to withdraw the approval of an accreditation body, the certificates for laboratories accredited by that agency remain in effect for 60 days after notification of the withdrawal of approval. This continuation may be extended by the secretary where the laboratory has a pending application for a certificate or accreditation. Where an accrediting body withdraws or revokes the accreditation of a laboratory, the laboratory's certificate will stay in effect for 45 days after it receives notice of the withdrawal or revocation, or where the secretary takes earlier action based on violation of other provisions.

Nonprofit entities can apply to the secretary to serve as an accreditation body according to criteria to be established by the secretary. The secretary is authorized to conduct a limited number of inspections of accredited laboratories as a means of measuring the performance of accrediting bodies. Accrediting bodies will be subject to annual review of their performance. The secretary also is to prepare an annual report to the House of Representatives Committee on Energy and Commerce and the Senate Committee on Labor and Human Resources that describes the results of accrediting body evaluations.

Laboratory Standards

Quality assurance control

A certified laboratory must meet standards issued by the HHS secretary. Laboratories will be required to maintain a quality assurance and quality control program, including requirements relating to proper collection, transportation, and storage of specimens and reporting of results. Laboratories also will be required to maintain records, equipment, and facilities that are necessary for the laboratory operations.

The secretary has the authority to determine other requirements, in addition to proficiency testing and personnel standards, that are "necessary to assure consistent performance." In developing standards, the secretary is to take into consideration numerous factors, including:

- ► the examinations and procedures performed and methodologies employed by the laboratory;
- ► the degree of independent judgment involved;
- ► the amount of interpretation involved;
- ► the calibration and quality-control requirements of the instruments used; and
- ► the type of training required to operate these instruments.

Personnel qualifications

The HHS secretary is to establish personnel qualifications for those individuals who direct, supervise, and perform examinations and procedures within a laboratory. In determining appropriate qualifications, the secretary is to take into consideration competency, training, experience, job performance, and education. In addition, qualifications shall be different, as appropriate, based on the type of examinations and procedures being performed by the laboratory and the risks and consequences of erroneous results associated with those tests.

Proficiency testing

Laboratories also will be required to participate in a proficiency testing (PT) program. In establishing standards for PT programs, certified laboratories must be tested for each examination and procedure conducted by the laboratory. Exceptions will be allowed where the secretary determines that proficiency tests cannot reasonably be developed for an examination or procedure. Proficiency testing will be conducted quarterly, unless the secretary determines (for technical and scientific reasons) that a particular examination or procedure may be tested less frequently. Minimally, proficiency testing must be conducted at least twice a year. In setting PT standards, the secretary is to include uniform criteria for acceptable performance. The criteria are to be uniform for each examination and procedure, and a system for grading PT performance will be established.

Proficiency-testing programs developed by a state or an accreditation agency must, at a minimum, meet the standards established by the secretary. States and accrediting bodies must provide technical assistance to laboratories seeking to qualify under their programs. The secretary will evaluate state and accrediting agency PT programs annually and will be empowered to withdraw approval of a program that fails to meet federal standards. To assure compliance with PT requirements, the secretary, state, or accrediting body will also perform on-site proficiency testing.

The secretary has the authority to require laboratories that fail to perform acceptably to participate in a training program and to obtain technical assistance to meet the PT standards. In addition, the laboratory may be required to enroll in a program of enhanced proficiency testing.

Upon request and on a reasonable basis, the secretary will make the proficiency test results available and will include explanatory information that will assist in the interpretation of results.

Inspections

To determine their compliance with application requirements and laboratory standards, certified laboratories will be subjected to announced and unannounced inspections during regular hours of operation. These inspections will be conducted biennially. The secretary has the authority to modify this frequency if it is deemed necessary to inspect more or less frequently to comply with laboratory requirements and standards. Accredited laboratories will be subjected to inspections as needed to assure compliance with laboratory standards and requirements.

Cytology Services

The secretary will establish national standards for quality assurance in cytology services. The standards will include:

- ► the maximum number of cytology slides that any individual worker may screen in a 24-hour period;
- ► laboratory record-keeping requirements that document the maximum number of slides screened during each 24-hour period by each worker, and the number of hours each worker devoted to screening cytology slides during each 24-hour period;
- ► rescreening requirements (random rescreening, focused rescreening, and prior specimen rescreening for abnormal cytological results);
- ► procedures for detecting inadequately prepared slides and notifying physicians of these slides;
- ► periodic confirmation and evaluation of the proficiency of the individuals involved in screening or interpreting cytological preparations (including announced and unannounced on-site proficiency testing of these requirements);
- ► requirements that all screening be done on the premises of the certified laboratory;
- ► slide retention requirements; and
- ► periodic inspections of cytology services by qualified individuals.

Sanctions

In addition to suspending, revoking, or limiting a certificate, the secretary will have the authority to impose *intermediate sanctions.* Intermediate sanctions will consist of one or a combination of:

- ► directed plans of correction;
- ► civil money penalties of up to $10,000 for each violation for each day of substantial noncompliance with the laboratory standards; or
- ► payment for the cost of on-site

monitoring.

The secretary is required to develop procedures for imposing intermediate sanctions. These procedures will require the provision of notice to the laboratory and a reasonable opportunity to respond to the proposed sanction, and will spell out appropriate procedures for appealing decisions to impose intermediate sanctions.

A laboratory certification may be suspended, revoked, or limited where the secretary finds after a hearing, that the laboratory:

- ► made a misrepresentation in obtaining the certificate,
- ► performed or misrepresented its ability to perform laboratory examinations or other procedures that are outside of the scope of its certificate,
- ► failed to comply with application requirements or standards set forth by the secretary,
- ► failed to comply with reasonable requests by the secretary for information or materials that the secretary concludes are necessary to determine the laboratory's continued eligibility for its certificate or compliance with the standards,
- ► refused a reasonable request by the secretary for permission to inspect the laboratory during its hours of operation,
- ► violated a provision of this law or regulations promulgated under the law, or
- ► has not complied with an intermediate sanction.

Where the secretary determines that a laboratory's failure to comply with the standards presents an imminent and serious risk to health, or where the laboratory fails to comply with reasonable requests for materials or an inspection, the secretary may suspend or limit the laboratory's certificate prior to a hearing. A hearing will be provided in such situations within 60 days of the suspension or limitation. Where the secretary has reason to believe that continuation of any activity by a laboratory constitutes a significant hazard to the public health, the secretary is empowered to bring suit in U.S. District Court to enjoin the laboratory's activity.

Individuals who have owned or operated a laboratory test that has had its certificate revoked may not own or operate a different laboratory within two years of the revocation of the certificate. In addition, where the secretary determines that a laboratory has intentionally referred proficiency test samples to another laboratory for analysis, the laboratory will have its certificate revoked for at least one year and be subjected to fines and penalties.

Laboratories subjected to intermediate sanctions or to having a certificate suspended, revoked, or limited may file a petition with the U.S. Court of Appeals for judicial review.

Individuals who intentionally violate requirements of this act or regulations promulgated under the act may be imprisoned for up to one year. Anyone who is found guilty of subsequent violations may be imprisoned for up to three years. These individuals also would be subjected to fines.

Fees

The secretary is authorized to require payment of fees for the issuance and renewal of certificates. The secretary is authorized to require a nominal fee for the issuance and renewal of certificates of waiver. *Nonaccredited laboratories will be required to pay fees for inspections and for the cost of proficiency testing.* Certification fees and certificate of waiver fees must be sufficient to cover the cost of administering the program. Additional fees for inspection costs and PT costs must be sufficient to cover the cost of those operations. Fees are to vary by group or classification of laboratory, based on considerations such as dollar volume and scope of testing being provided by the laboratory.

Information Availability

On *April 1, 1990,* and annually thereafter, the secretary is to make available to physicians and the general public information based on the previous calendar year that will aid in evaluating the performance of laboratories. This information is to include a list of laboratories that: have been convicted under federal or state laws relating to fraud or abuse, false billings, or kickbacks; have had their certificates revoked, suspended, limited, or have been subjected to sanctions; have had their accreditation withdrawn or revoked; and have been excluded from participating in either Medicare or Medicaid.

State Laws

States have the authority to enact and enforce laws relating to clinical laboratory services where those laws or regulations are not inconsistent with this act. Where a state has laws that are equal to or more stringent than the requirements of this act, the secretary may exempt laboratories from compliance with this act.

Effective Dates

The provisions of this act relating to monitoring, enforcement, and fees became effective January 1, 1989. The remaining provisions for independent laboratories (now currently regulated under the Clinical Laboratories Improvement Act) would become effective on January 1, 1990. Laboratories that currently are not subject to federal regulation would have personnel standards and inspection requirements apply to them after July 1, 1991.

The information contained in this article was provided by the American Medical Association, Department of Federal Legislation, Division of Legislative Activities.

Clinical Laboratory Improvements Amendments of 1988, P.L. 100-578.

Clinical Laboratory Improvements Act of 1967, incorporated in the Public Health Service Act (42 U.S.C. 263a).

NEWS CLIPS

ALZHEIMER'S MEMORY TEST

Disturbances in recent memory are among the earliest clinical signs of dementia due to Alzheimer's disease, but currently available memory tests are of limited use in distinguishing Alzheimer's patients from normal elderly patients due to a lack of suitability for bedside use or large-scale screening. A new memory test described in February's *Archives of Neurology* seems to be a brief, efficient, and accurate means of predicting Alzheimer's in elderly subjects. The "delayed word recall" (DWR) test, devised by David S. Knopman, M.D., and Soren Ryberg, M.D., of the University of Minnesota Hospital, Minneapolis, requires patients to make up sentences using each of 10 common nouns, and checks their recall of the nouns a short time later. The test was used in 55 normal elderly subjects and 28 patients with possible or probable Alzheimer's.

"The overall predictive accuracy of the DWR test was 95.2 percent," the authors said. "In addition, scores on the DWR test in normal subjects were not correlated with education or age."

HEALTHEAST EXEC RESIGNS

The president and chief executive officer of HealthEast, John Reiling, resigned in February after heading the St. Paul-based organization for 2½ years. Reiling had led the five-hospital conglomeration through a period of reorganization and rapid growth by consolidating and shifting hospital staff and services in an effort to improve efficiency.

Reiling said he is serving as a consultant while the HealthEast board of directors seeks a new president, and he added that he will look for another position in the Twin Cities area.

JOINT ACCREDITATION FOR HEALTHEAST

The five HealthEast hospitals have received Joint Commission on Accreditation of Healthcare Organizations (JCAHO) accreditation for three years. HealthEast is one of only five health care systems in the United States, and the only one in Minnesota, to be awarded a single accreditation for all the hospitals in a system.

According to JCAHO, it is an indication of the efforts and commitment of an organization to provide high-quality care for those it serves.

NATIONAL AIDS PANEL APPOINTMENT

Ramsey County Commissioner Diane Ahrens was appointed in February to the 15-member National Commission on AIDS by House Speaker Jim Wright. The commission, created by Congress last year to succeed the Presidential Commission on AIDS, will evaluate and recommend policy for the nationwide prevention and treatment of AIDS.

Ahrens had chaired an AIDS task force for the National Association of Counties.

NOT SEEING EYE TO EYE

A proposal to allow optometrists to treat common forms of eye disease was killed in a Minnesota House committee in February, assuring that it will not become law in 1989. The Health and Human Services Committee voted 17-9 against the bill after hearing two hours of testimony. Opponents of the bill—including the MMA—said optometrists don't have the training to prescribe drugs to treat eye diseases.

HIGH MARKS FOR "U" CANCER CENTER

The University of Minnesota Women's Cancer Center has some of the country's and the world's best gynecological cancer survival rates, according to the 1988 Annual Report on Gynecological Cancer.

Five-year survival rate data from 139 worldwide medical centers, including 19 U.S. centers, regarding cervical, endometrial, ovarian, vulvar, and vaginal cancer for patients treated between 1979 and 1981, were examined. Survival rates for the university's cervical, ovarian, and vulvar cancer patients, including those with cancer in various stages, were the best in the nation. For endometrial cancer, the university had the country's second-best five-year survival rate.

REDUCING COCAINE CRAVING

After preliminary studies have shown the drug carbamazepine to markedly reduce craving for cocaine, psychiatrists at the University of Minnesota are organizing a more thorough study of the drug. Although the preliminary study included only 21 cocaine addicts and did not use a control group, James Halikas, M.D., director of the study, said that the researchers may have found a drug that cures or eliminates craving for cocaine. Halikas would like to study 200 to 300 drug users and include a control group in the more extensive proposed study.

MENTAL HEALTH SEMINARS

The University of Minnesota Humphrey Institute's Reflective Leadership Center has received an $87,000 grant from the Minnesota Department of Human Services for "Leadership in Mental Health: A Sense of the Possible," a series of 10 one-day statewide seminars focusing on leadership and the improvement of mental health services. The seminars are designed for county commissioners and leaders and consumers of mental health services.

"The goal is to help leaders in mental health services better understand different perspectives on mental illness and state laws on the subject," said Sharon Anderson, the center's associate director and project leader.

NATIONAL CONFERENCE ON DEATH

St. Mary's Grief Support Center in Duluth has been selected by the National Conference of the Association for Death Education and Counseling as host for its 1991 annual conference. People involved in death education and counseling from all over the country and the world will participate in the April 26-28, 1991, conference.

$35,000 FINE FOR MAYO

The Mayo Clinic's parent organization, the Mayo Foundation, has agreed to pay a $35,000 fine for improperly burning medical and nonmedical waste at its Institute Hills facility in Rochester, Minnesota. It is the first such penalty levied on any of the 140 or so incinerators that burn medical waste in Minnesota, according to the Minnesota Pollution Control Agency.

MAYO SUN BELT EXPANSION

The Board of Trustees of Mayo Foundation has approved expansion projects for Mayo Clinic Jacksonville, Florida, and Mayo Clinic Scottsdale, Arizona. The expansions will double the sizes of the Sun Belt facilities, which are Mayo's first locations outside Minnesota.

SHARE SUES DOCTORS

Share Health Plan, one of Minnesota's largest health maintenance organizations, sued Aspen Medical Group in February for allegedly defaulting on a $1.2 million promissory note and improperly ousting a Share official from Aspen's board of directors. Aspen is Share's largest health care provider.

According to the lawsuit filed in Hennepin County District Court, Aspen defaulted on the promissory note by missing a $20,000 payment in January. Aspen contends that its working agreement with Share is no longer in effect.

INSURANCE FOR WISCONSIN'S UNINSURED

The State Medical Society of Wisconsin recently revealed an incentive plan for small employers to voluntarily provide health care coverage for otherwise uninsured employees. The plan is designed to be used by the Wisconsin state legislature in implementing an insurance plan. Studies in Wisconsin have found that more than three-fourths of the uninsured live in households where at least one member is working. In addition, about 40 percent of companies with fewer than 20 employees—most of that state's businesses—do not offer an insurance plan.

NURSING SHORTAGE

A survey of more than 750 health care facilities across the country revealed an average vacancy rate of 10.5 percent for registered nurse positions. Shortages were greatest in the south central region (13.1 percent), in rural areas (12.4 percent), and in hospitals with fewer than 150 beds (12.2 percent). The survey, "The Shortage of Registered Nurses in the Health Care Community," was conducted by ECS, a Wyatt Data Services company.

The survey also found that RN salaries increased by an average of 8.6 percent between July 1987 and July 1988, which was 3.3 percentage points higher than the average increase of other health care professionals.

CANADIAN DRUG-ACCESS LAW

The Canadian government has recently brought to light a 10-year-old law that allows patients with life-threatening diseases to obtain any drugs that are for sale, whether or not any country has approved the drugs. Canadian officials sent notices to all Canadian physicians to alert them about the law, which may be particularly beneficial to people with AIDS. While the program is aimed at Canadian patients, U.S. citizens can make use of it through Canadian doctors. The drugs need not be made by Canadian companies.

AIDS GUIDELINES FOR EMERGENCY WORKERS

New recommendations released by federal health officials for police, paramedics, and emergency workers urge the workers to treat any body fluids as if they are potentially hazardous. The report, issued by the Centers for Disease Control in February, is intended to prevent transmission of the Human Immunodeficiency Virus and hepatitis B. The CDC recommends protective clothing, including masks, goggles, gloves, and gowns, when handling a patient or prisoner who is bleeding violently; but just disposable gloves for workers placing intravenous lines in patients. It also recommends special masks for workers giving mouth-to-mouth resuscitation.

MEDICAID OVERHAUL?

A coalition led by the American Medical Association recently proposed a sweeping overhaul of Medicaid to expand coverage to 11 million more poor, improve benefits, and raise reimbursement rates paid to hospitals and physicians. The coalition said that although the federal government spent $30.5 billion and state governments spent $20.5 billion on Medicaid, fewer than half of Americans below the poverty level are enrolled in the program. The coalition's proposal would cost between $13.2 billion and $28 billion.

ACCREDITING PHYSICIAN LABS

The Commission on Office Laboratory Assessment (COLA), sponsored by the American Academy of Family Physicians, the American Society of Internal Medicine, the College of American Pathologists, and the American Medical Association, is now operational and ready to accredit office labs (see related story page 233). COLA has published a handbook describing the voluntary educational and accreditation program for physician office laboratories. It provides information about the COLA program, requirements for accreditation, and types of accreditation, and contains a step-by-step flowchart of the accreditation process and an application for COLA accreditation. Contact COLA, 8701 Georgia Avenue, Suite 403-B, Silver Spring, Maryland 20910; (301) 588-5882.

Source: American Medical News, *February 17, 1989*

'88 HOSPITAL CLOSINGS

A record number of 128 hospitals closed in 1988, the American Hospital Association said recently, marking the sixth straight record year for closings. Eighty-one community hospitals and 21 non-community hospitals shut their doors; 43 of the community hospital closings were in rural areas.

According to the Minnesota Hospital Association, however, no hospitals closed in Minnesota last year.

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BRIEF SUMMARY

CONTRAINDICATIONS

There are no known contraindications to the use of sucralfate.

PRECAUTIONS

Duodenal ulcer is a chronic, recurrent disease. While short-term treatment with sucralfate can result in complete healing of the ulcer, a successful course of treatment with sucralfate should not be expected to alter the post-healing frequency or severity of duodenal ulceration.

Drug Interactions: Animal studies have shown that simultaneous administration of CARAFATE (sucralfate) with tetracycline, phenytoin, digoxin, or cimetidine will result in a statistically significant reduction in the bioavailability of these agents. The bioavailability of these agents may be restored simply by separating the administration of these agents from that of CARAFATE by two hours. This interaction appears to be nonsystemic in origin, presumably resulting from these agents being bound by CARAFATE in the gastrointestinal tract. The clinical significance of these animal studies is yet to be defined. However, because of the potential of CARAFATE to alter the absorption of some drugs from the gastrointestinal tract, the separate administration of CARAFATE from that of other agents should be considered when alterations in bioavailability are felt to be critical for concomitantly administered drugs.

Carcinogenesis, Mutagenesis, Impairment of Fertility: Chronic oral toxicity studies of 24 months' duration were conducted in mice and rats at doses up to 1 gm/kg (12 times the human dose). There was no evidence of drug-related tumorigenicity. A reproduction study in rats at doses up to 38 times the human dose did not reveal any indication of fertility impairment. Mutagenicity studies were not conducted.

Pregnancy: Teratogenic effects. Pregnancy Category B. Teratogenicity studies have been performed in mice, rats, and rabbits at doses up to 50 times the human dose and have revealed no evidence of harm to the fetus due to sucralfate. There are, however, no adequate and well-controlled studies in pregnant women. Because animal reproduction studies are not always predictive of human response, this drug should be used during pregnancy only if clearly needed.

Nursing Mothers: It is not known whether this drug is excreted in human milk. Because many drugs are excreted in human milk, caution should be exercised when sucralfate is administered to a nursing woman.

Pediatric Use: Safety and effectiveness in children have not been established.

ADVERSE REACTIONS

Adverse reactions to sucralfate in clinical trials were minor and only rarely led to discontinuation of the drug. In studies involving over 2,500 patients treated with sucralfate, adverse effects were reported in 121 (4.7%).

Constipation was the most frequent complaint (2.2%). Other adverse effects, reported in no more than one of every 350 patients, were diarrhea, nausea, gastric discomfort, indigestion, dry mouth, rash, pruritus, back pain, dizziness, sleepiness, and vertigo.

OVERDOSAGE

There is no experience in humans with overdosage. Acute oral toxicity studies in animals, however, using doses up to 12 gm/kg body weight, could not find a lethal dose. Risks associated with overdosage should, therefore, be minimal.

DOSAGE AND ADMINISTRATION

The recommended adult oral dosage for duodenal ulcer is 1 gm four times a day on an empty stomach.

Antacids may be prescribed as needed for relief of pain but should not be taken within one-half hour before or after sucralfate.

While healing with sucralfate may occur during the first week or two, treatment should be continued for 4 to 8 weeks unless healing has been demonstrated by x-ray or endoscopic examination.

HOW SUPPLIED

CARAFATE (sucralfate) 1-gm tablets are supplied in bottles of 100 (NDC 0088-1712-47) and in Unit Dose Identification Paks of 100 (NDC 0088-1712-49). Light pink scored oblong tablets are embossed with CARAFATE on one side and 1712 bracketed by C's on the other. Issued 1/87

Reference:

1. Eliakim R, Ophir M, Rachmilewitz D: *J Clin Gastroenterol* 1987;9(4):395-399.

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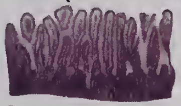
Aspirin and other nonsteroidal anti-inflammatory drugs weaken mucosal defenses, which may lead NSAID users to become prone to duodenal ulcers.[1] For those NSAID users who do develop duodenal ulcers, CARAFATE® (sucralfate/Marion) is ideal first-line therapy. Carafate rebuilds mucosal  defenses through a unique, nonsystemic mode of action. Carafate enhances the body's natural healing ability while it protects damaged mucosa from further injury. So the next time you see an arthritis patient with a duodenal ulcer, prescribe nonsystemic Carafate: therapy for the ulcer-prone patient.

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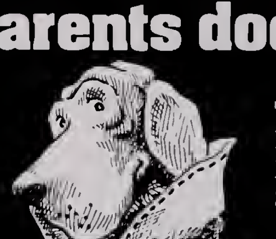

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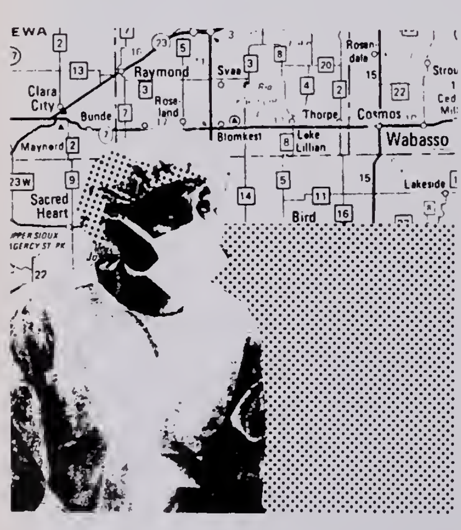
AIR FORCE

Van Hook from page 200

VAN HOOK: If we win, we'll get rid of the basic part of the urban/rural differential. That will help greatly. That's a long-term goal with the lawsuit, because the courts don't move quickly. We also will continue to work with other associations to try to win the case in Congress. Congress created the problem by requiring rural-urban rates, and they could fix it with the stroke of a pen. But given the budget constraints, it's not likely that they're going to make the changes that we want, either in physician payments or in hospital payments, with one fell swoop. They will take it slowly and do it incrementally. We've managed to make rural health an issue both in the federal government and in state capitols. I'm pleased with that. The National Rural Health Association is going to continue to work to keep the voice of rural health heard and make sure that we don't get lost in the shuffle again.

REECE: *Let's talk a moment about the magnitude of this disparity of payment by Medicare and how it's affecting rural hospitals. As I understand it, there are about 2,700 rural hospitals, and as many as 600 of them might close in the next few years.*

VAN HOOK: That's right. And the American Hospital Association just released statistics for 1988 showing that the number of rural hospital closings continued to climb again last year. More rural hospitals closed than urban hospitals for the second year in a row. The trend for urban hospital closures was downward in 1988. However, the upward trend continues for rural hospitals. Forty-three rural hospitals closed last year. That's disturbing to us, primarily because they are closing randomly. The prospective payment system is built on large averages; rural hospitals have small numbers of cases, so they don't get the benefit of large numbers to spread their high-cost cases over. The system works perversely on the tyranny of averages. When this tyranny is applied to small rural hospitals, it slowly chokes them off. Obviously, some rural hospitals could close without compromising access much, but we think these closures ought to occur more rationally and more thoughtfully than they are under the current system.



"The system works perversely on the tyranny of averages. When this tyranny is applied to small rural hospitals, it slowly chokes them off."

REECE: *These closures must be devastating sometimes, not only to rural citizens but to rural physicians.*

VAN HOOK: Absolutely. I know when hospitals close, doctors leave, too. I know of one case in California, for example, where a young family practice doctor, well-trained, good background and experience, had been in teaching positions before he went to California to work in a small community. The rural hospital closed there. What used to be a five-person medical community became a one-person medical community. He's stuck there holding the bag with no hospital practice. He's in terrible shape right now and barely able to make a living. Not only that, it's not just the hospital closing, but it's also the fact that rural doctors are often paid less than their urban counterparts for exactly the same service. Sometimes they can be classmates, and one goes to work in the city and the other goes to work 30 miles away in the country, and the disparity in payment can be 30 to 50 percent. We see that in Minnesota as well as in many other states.

REECE: *Is this causing an outflow of rural physicians back to the city?*

VAN HOOK: We don't know all the causal factors. The doctors who choose to practice in rural areas want to be there. They've chosen that lifestyle, and they've chosen that scope and style of practice. Making a little less money only makes it uncomfortable for them; it probably doesn't usually chase them out. We're seeing an increase in the number of doctors moving into rural areas, but the increase tends to be in areas near large cities.

REECE: *I'm reading from a news clipping here that says a Senate Aging Committee panel found that by 1993, as many as 25 percent of rural physicians may retire or leave their communities.*

VAN HOOK: There's a bimodal curve of ages of rural doctors. There's an older group and a younger group. There's not a whole lot in the middle. That's what concerns us. We have a lot of older doctors out there, and we're beginning to get some younger doctors out to rural areas. But so many rural doctors are retiring and dying because of age that you need a lot more backfill just to hold your own. We're going to lose a lot of doctors over the next several years.

REECE: *Would you characterize this rural health care erosion as a "crisis"?*

VAN HOOK: I think it is. It's not just these factors. Other factors come into play as well—the rural economy is in bad shape. The changing utilization of facilities and practitioners in rural areas has gotten us to the point where we need to rethink what rural health care is and how it should be best organized. We don't do that kind of thoughtful planning very well in this country. I'm not sure where it's going to go, but we really need to think about this: Is an acute care hospital the right kind of facility for a large number of rural communities? Rural communities need to think about what they need and can support without undue regard for existing delivery models.

REECE: *Are rural hospitals changing their character?*

VAN HOOK: Yes. They are trying to. Part of the problem is they don't have resources with which to change. There are explorations all over the country now of different modes of organizing services. Cooperatives are being developed such as in northern Minnesota and Wisconsin and other places around the country. Some hospitals are converting their facilities to other uses. They are either turning themselves into long-term care or more generic kinds of facilities—or medical assistance facilities, as they are called in Montana. In California they are looking at a new "building-block" model as well. So all kinds of things are happening all over the country. It's an exciting time in rural health, but it's also a very dangerous time.

REECE: *It's a double-whammy isn't it? There's not only payment disparity for hospitals, but there's a payment disparity for doctors. Maybe even a triple-whammy, because the rural people often are older and poorer and can't make up the difference.*

VAN HOOK: That's right. Whenever Medicare changes any of its payment policies, it impacts rural areas disproportionately because we rely so much on public financing for the health care system. It's really difficult. You look at rural doctors, and they tend to accept assignment from Medicare a lot less frequently than urban doctors do. Part of the reason is that they're so underpaid; if they stopped balance billing, they would be clobbered. Most doctors would prefer to take some of the burden off their patients by accepting assignment, but it's difficult when your payment rates are exploitatively low.

REECE: *Balance billing also casts them in an inappropriately bad light: They have to balance bill, yet they still receive less than their urban counterparts, who do not have to balance bill.*

VAN HOOK: Right. And part of what happens, too, is that in order to make a reasonable income, rural doctors have to see more patients. According to American Medical Association statistics, rural doctors see about 20 percent more office visits and work longer hours. I believe this is to compensate for the lack of compensation they get through the reimbursement system.

REECE: *Isn't a major part of the problem of the National Rural Health Association and the rural hospitals and physicians a political one? You simply don't have the numbers or the influence that the people on the coasts and the larger cities do.*

VAN HOOK: That's right. We have only about 25 percent of the population nationally. We have good support in the Senate. Senator Durenberger, for example, has been a staunch supporter of rural health, and we have the Senate Rural Health Caucus with about 60 members at this point. We have strong support in the Senate because every senator, except the ones from New Jersey, have some rural area as a part of their districts.

It's not the same with the House of Representatives, though. We get clobbered in the House, although we do have the House Rural Health Care Coalition with about 100 members. It's been a force in the House in trying to turn things around and create some more rural health interest. We're a little concerned, though, with the population migrations we're seeing, particularly in the Midwest. We don't know what's going to happen after the 1990 census and the reapportionment that will follow that. It could get even worse.

We believe rural people are a disadvantaged class, similar to other minorities, at this point. Rural people have special needs because of their geography and their culture and the kind of work they do, and yet they are largely ignored as a group when it comes to public policy. We often make decisions about programs that affect rural people without thinking about the kinds of programs that are going to have positive results. We downsize urban programs; we think they're going to work in rural areas, and they don't.

"Rural people have special needs because of their geography and their culture and the kind of work they do, and yet they are largely ignored as a group when it comes to public policy."

REECE: *Do you think correcting these economic imbalances will revitalize the hospital and physician system in rural areas?*

VAN HOOK: Yes. If you want people to do something, you've got to give them the incentive to do it, and the financial reimbursement system in our country is largely what runs the system. If you want people to provide inpatient, procedure-driven health care, then you provide reimbursement for it, which is what we're doing right now. If you want people to provide preventive, non-acute, primary care, then you reimburse more for that. If you want people to provide it in areas that are more sparsely populated and underserved, then you provide better reimbursement there. One of the things we got last year was a five percent bonus for primary care doctors practicing in areas of health manpower shortages. That's being kicked in now, as of January 1. We're hoping to get that raised to 10 percent. Those are the kinds of changes that we have to make to give us a level playing field. ■

CME IN MINNESOTA

Provided through the MMA Medical Education Subcommittee on CME Resources

For assistance with scheduling meetings or for information on future medical meetings and CME courses at the state and national level, please contact the MMA office: 2221 University Avenue SE, Suite 400, Minneapolis, Minnesota 55414; (612) 378-1875. Information for each entry is arranged by date; name of program; primary sponsor; location; contact person.

APRIL 1989

1 **Minnesota Society of Clinical Pathologists Spring Conference** Radisson University Hotel, Minneapolis, Minnesota. CONTACT: Carmela Brown, 2221 University Avenue SE, Suite 400, Minneapolis, Minnesota 55414; (612) 378-1875.

5-7 **Pulmonary Function Testing Workshop** St. Paul-Ramsey Medical Center. CONTACT: Bonnie Young, St. Paul-Ramsey Medical Center, 640 Jackson Street, St. Paul, Minnesota 55101; (612) 221-3977.

6-7 **Annual Obstetrics and Gynecology Update** St. Paul-Ramsey Medical Center. CONTACT: Bonnie Young, St. Paul-Ramsey Medical Center, 640 Jackson Street, St. Paul, Minnesota 55101; (612) 221-3977.

7 **5th Annual Duluth Heart Conference** The Duluth Clinic and St. Mary's Medical Center; Fitger's Spirit of the North Theater, Duluth, Minnesota. CONTACT: James G. Brueggeman, M.D., 400 East Third Street, Duluth, Minnesota 55805; (218) 722-8364, ext. 179.

7-8 **Colorectal Diseases** University of Minnesota CME; Radisson University Hotel, Minneapolis, Minnesota. CONTACT: James G. Brueggeman, M.D., 400 East Third Street, Duluth, Minnesota 55805; (218) 722-8364, ext. 179.

7-8 **Lasers in Gynecology** Abbott Northwestern Hospital; Abbott Northwestern Hospital, Minneapolis, Minnesota. CONTACT: Tim Schuh, CME Office, Abbott Northwestern Hospital, 800 East 28th Street, Minneapolis, Minnesota 55407; (612) 863-5461.

10-11 **Advanced Trauma Life Support** Hennepin Faculty Associates; Hennepin County Medical Center, Minneapolis, Minnesota. CONTACT: Eugenia Kassar, Hennepin Faculty Associates, 701 Park Avenue, Suite 4220, Minneapolis, Minnesota 55415; (612) 347-2075.

10-11 **Anterior Segment Immunology & Infectious Diseases** University of Minnesota CME; Holiday Inn Downtown, Minneapolis, Minnesota. CONTACT: Office of CME, Box 202, UMHC, 420 Delaware Street SE, Minneapolis, Minnesota 55455; (612) 626-5525.

10-14 **Team Management of Diabetes Mellitus** International Diabetes Center; International Diabetes Center, Park Nicollet Medical Foundation, Minneapolis, Minnesota. CONTACT: Lucy Mullen, R.N., B.S., Assistant Director of Education, Park Nicollet Medical Foundation, 5000 West 39th Street, Minneapolis, Minnesota 55416; (612) 927-3393.

13-14 **Allergy and Immunology** University of Minnesota CME; Mayo Memorial Auditorium, Minneapolis, Minnesota. CONTACT: Office of CME, Box 202, UMHC, 420 Delaware Street SE, Minneapolis, Minnesota 55455; (612) 626-5525.

14-15 **Children Who Kill** Abbott Northwestern Hospital, Registry Hotel, Bloomington, Minnesota. CONTACT: Tim Schuh, CME Office, Abbott Northwestern Hospital, 800 East 28th Street, Minneapolis, Minnesota 55407; (612) 863-5461.

14-15 **12th Annual Update in Clinical Cardiology** Abbott Northwestern Hospital; Abbott Northwestern Hospital; Minneapolis, Minnesota. CONTACT: Tim Schuh, CME Office, Abbott Northwestern Hospital, 800 East 28th Street, Minneapolis, Minnesota 55407; (612) 863-5461.

14-15 **General Laser Surgery: A "Hands-On" Training Program** Abbott Northwestern Hospital. CONTACT: Tim Schuh, CME Office, Abbott Northwestern Hospital, 800 East 28th Street, Minneapolis, Minnesota 55407; (612) 863-5461.

14-16 **Playing Hurt: Second Annual Conference on the Identification, Prevention, and Treatment of Medical Problems of Musicians** University of Minnesota and the Minnesota Orchestra; Holiday Inn-Metrodome, Minneapolis, Minnesota. CONTACT: Char Greenwald, University of Minnesota, 15 Church Street SE, 107 Armory, Minneapolis, Minnesota 55455; (612) 625-1520.

15 **The Temporomandibular Joint: New Concepts** Center for Diagnostic Imaging; Scanticon Conference Center, Center for Diagnostic Imaging, Wayzata, Minnesota. CONTACT: Kurt P. Schellhas, M.D., Center for Diagnostic Imaging, 5775 Wayzata Boulevard, #190, St. Louis Park, Minnesota 55416; (612) 541-1840.

16 **Neurosurgery** St. Paul-Ramsey Medical Center. CONTACT: Bonnie Young, St. Paul-Ramsey Medical Center, 640 Jackson Street, St. Paul, Minnesota 55101; (612) 221-3977.

17-19 **Partners in Managing Type II Diabetes** International Diabetes Center; International Diabetes Center, Park Nicollet Medical Foundation, Minneapolis, Minnesota. CONTACT: Lucy Mullen, RN, BS, Assistant Director of Education, Park Nicollet Medical Foundation, 5000 West 39th Street, Minneapolis, Minnesota 55416; (612) 927-3393.

17-19 **Annual Spring Refresher** Minnesota Academy of Family Physicians; Hyatt Regency Hotel, Minneapolis, Minnesota. CONTACT: Virginia Barzan, Executive Director, Minnesota Academy of Family Physicians, 2221 University Avenue SE, Suite 426, Minneapolis, Minnesota 55414; (612) 331-2506.

19 **Insomnia-Related Topic—Dinner Program** Hennepin Faculty Associates; Normandy Inn, Minneapolis, Minnesota. CONTACT: Eugenia Kassar, Hennepin Faculty Associates, 701 Park Avenue, Suite 4220, Minneapolis, Minnesota 55415; (612) 347-2075.

24-28 **Team Management of Diabetes Mellitus** International Diabetes Center; International Diabetes Center, Park Nicollet Medical Foundation, Minneapolis, Minnesota. CONTACT: Lucy Mullen, RN, BS, Assistant Director of Education, Park Nicollet Medical Foundation, 5000 West 39th Street, Minneapolis, Minnesota 55416; (612) 927-3393.

28 **GI: New Approaches to Old Problems** Hennepin County Medical Center; Pillsbury Auditorium, HCMC, Minneapolis, Minnesota. CONTACT: Karin Ginther, Office of Academic Affairs, 701 Park Avenue, Suite 4220, Minneapolis, Minnesota 55415; (612) 347-2075.

28-29 **MOS Annual Meeting** Minnesota Orthopaedic Society; Radisson Plaza Hotel, Minneapolis, Minnesota. CONTACT: Carmela Brown, Minnesota Medical Association, 2221 University Avenue SE, Suite 400, Minneapolis, Minnesota 55414; (612) 378-1875.

28-29 **Lasers in General Surgery** Abbott Northwestern Hospital; Minneapolis, Minnesota. CONTACT: Tim Schuh, CME Office, Abbott Northwestern Hospital, 800 East 28th Street, Minneapolis, Minnesota 55407; (612) 863-5461.

MAY 1989

5 **Continuing Medical Education/Continuing Legal Education Conference** Hennepin Faculty Associates; Hennepin County Medical Center, Minneapolis, Minnesota. CONTACT: Eugenia Kassar, Hennepin Faculty Associates, 701 Park Avenue, Suite 4220, Minneapolis, Minnesota 55415; (612) 347-2075.

5 **Duluth Clinic Spring Primary Care Seminar** The Duluth Clinic, Ltd.; Fitger's Spirit of the North Theater, Duluth, Minnesota. CONTACT: James G. Brueggemann, M.D., 400 East 3rd Street, Duluth, Minnesota 55805; (218) 722-8364, Ext. 179.

6-7 **Neonatal Resuscitation Course** Great Plains Organization for Perinatal Health Care; Airport Hilton, Minneapolis, Minnesota. CONTACT: Mary McClung, 1100 South Euclid Avenue, Sioux Falls, South Dakota 57117-5039; (602) 333-7191.

7-9 **19th Annual Meeting: The Impact of Society on Perinatal Care** Great Plains Organization for Perinatal Health Care; Airport Hilton, Minneapolis, Minnesota. CONTACT: Mary McClung, 1100 South Euclid Avenue, Sioux Falls, South Dakota 57117-5039; (602) 333-7191.

8-10 **First International Symposium on Myofascial Pain and Fibromyalgia** University of Minnesota CME; Hyatt Regency Hotel, Minneapolis, Minnesota. CONTACT: Patricia Morandi, Office of CME, Box 202 UMHC, 420 Delaware Street SE, Minneapolis, Minnesota 55455; (612) 626-5525.

Health One Continuing Medical Education

April 10

The Third Annual Kerkhof Memorial Lecture Reception – 5:30 p.m. cocktails, 6:00 dinner, 7:00 lecture. Marriott City Center. Sponsored by Metropolitan-Mount Sinai Medical Center. Featured speaker: H.J.C. Swan, M.D., PhD., M.S.C.P., UCLA School of Medicine – "Treatment of Acute Myocardial Infarction, Hemodynamics to Thrombolytics." Charge: $25 for non-Metropolitan-Mount Sinai physicians. For information, call 347-4412.

April 26

Seminar on "Systemic Necrotizing Vasculitis" – 3:00-8:00 p.m., Heilicher Auditorium, Phillips Campus, Metropolitan-Mount Sinai. Featured speakers: Gene Hunder, M.D., Mayo Clinic; Randi Leavitt, M.D., NIH; and Maren Mahowald, M.D., VA, Minneapolis.

May 1

"The Relative Value Scale," by Alvin L. Schultz, M.D. – 6:30 p.m., Health Central of Owatonna.

May 3

CPR for Physicians – 6:00-8:00 p.m., Gemini Room, Phillips Campus, Metropolitan-Mount Sinai.

May 6

Cardiology Conference for Primary Care Physicians. Sponsored by Mercy Medical Center, Metropolitan-Mount Sinai Medical Center and Unity Medical Center. Mercy Auditorium. 8:00 a.m.

May 9

"Pathophysiology of Anemia," by Joe Cardamone, M.D. Health Central of Buffalo. 5:30 p.m.

May 23

"Vascular Headache" by T. Capistrant, M.D. – 7:30 a.m., River Falls Area Hospital.

June 16

"Controversies In Primary Care" co-sponsored by Metropolitan-Mount Sinai Medical Center and Hennepin County Medical Center. Pillsbury Auditorium HCMC. Featuring luncheon keynote presentation by Rick Bay, Athletic Director, University of Minnesota.

For further information, contact Beth Murphy, CME Manager, Medical Affairs Division, Health One. (612) 574-7716.

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Twenty-nine Physician Multispecialty Clinic located in desirable east-central Wisconsin location is seeking board-certified or board-qualified orthopedic surgeon to round out its services. Lab, X-ray, excellent hospital. Liberal guarantee and benefits. If interested, contact: D.F. Sweet, M.D., Fond du Lac Clinic, S.C., 80 Sheboygan Street, Fond du Lac, Wisconsin 54935. (R)

General Surgeon and Family Physician needed for busy five-physician practice. Guaranteed first-year salary with excellent benefits program. Located only 22 miles from Duluth on the beautiful North Shore of Lake Superior. Call collect: (218) 834-2171, or write Steve Bjorum, Executive Director, Community Health Center, 4th Street at 11th Avenue, Two Harbors, Minnesota 55616. (R)

Family Physician/Emergency Room: Full-time salary working weekends, primarily emergency room. Flexibility available. Falls Medical Center, PA, 105 Shorewood Drive, International Falls, Minnesota 56649. Please contact: A. Johnson, M.D., or A. Marc Gorden, M.D., at (218) 283-9431 for more information. (R)

Canterbury Inn Bed & Breakfast: Rochester's unique alternative to hotel living. Victorian charm with modern comforts. Private baths, fireplace, central air conditioning, gourmet or special diet breakfast anytime, "tea-time" (wine, hors d'oeuvres, etc.) daily. Private, off-street parking, three blocks to Mayo Clinic and St. Mary's. A very special place for you, your colleagues, and your patients while in Rochester. $55/single, $65/double. 723 Second Street SE, Rochester, Minnesota 55902; (507) 289-5553. (R)

BE/BC OB/GYN or GYN/GYN Surgery, to join a busy 11-man multispecialty group in southern Minnesota, a community of 12,000 (trade area of 70,000), competitive salary and fringe benefits. Contact: Don Grandgenett, 8 a.m., Fairmont Medical Clinic, 800 Clinic Circle, Fairmont, Minnesota 56031; (507) 238-4263. (R)

Family Physician wanted to join four physicians, one nurse practitioner, FP group practicing in two offices in Pine River and Pequot Lakes. Competitive salary. No OB. No HMOs. Rural area with outdoor recreational opportunities. Rotate hospital visits, emergency call; adequate free time. Call or write: C.R. Pelzl, M.D., Pine and Lakes Clinics, PO Box 88, Pine River, Minnesota 56474; (218) 587-4416. (R)

Physician: GP/FP/EM seeks locations to cover on weekends as locum tenens. Board-certified. FP. Lic. Minn. Write: Box 35132, Minneapolis, Minnesota 55436. (R)

Wausau Medical Center is seeking BE/BC individuals in the following specialties: cardiology, dermatology, family practice, infectious disease, obstetrics/gynecology, pediatrics, and rheumatology. Modern clinic facility located across the street from modern, 300-bed hospital. Full partnership in three years. Easy access to lakes, woods, and mountains. Write (including CV) to: D.K. Aughenbaugh, M.D., Medical Director, Wausau Medical Center, 2727 Plaza Drive, Wausau, Wisconsin 54401. (R)

Family Physician: Dynamic 13-physician, 3-office, single-specialty practice in northwest Minneapolis suburbs seeking additional associate, BE/BC; OB available. Competitive salary, full benefits, reasonable call and hospital rounds schedule. Contact: Dr. Ken Kephart, Northwest Family Physicians; (612) 476-6776. (R)

Urgent: FP/GP physicians needed for practice opportunities within ARIZONA and throughout the United States. Excellent group and solo opportunities available. For additional information, call (602) 990-8080; or send CV in confidence to: Mitchell & Associates, Inc., PO Box 1804, Scottsdale, Arizona 85252. (*R)

Johnson & Falls Search Associates represents new practice opportunities locally and nationally. Working exclusively in the area of physician search, we are committed to expanding your professional options while meeting our clients' needs. There are no fees to candidates. For a thorough, confidential search, send CV or call: Liz Johnson, or Pat Falls, Johnson & Falls Search Associates, 34 Forest Dale Road, Minneapolis, Minnesota 55410; (612) 922-0237. (R)

Mankato Clinic, Ltd. is seeking BE/BC physicians in the following specialties: allergy, dermatology, invasive cardiology, oncology, urology, ophthalmology, and general internal medicine. The Mankato Clinic is a 38-doctor multispecialty group practice in south-central Minnesota with a trade area population of 150,000. Guaranteed salary first year, incentive thereafter with full range of benefits and liberal time off. For more information, call Roger Greenwald, Administrator, or Dr. B.C. McGregor, (507) 625-1811 or write 501 Holly Lane, Mankato, Minnesota 56001. (R)

Family Physician needed to join group of five family physicians in St. Peter, Minnesota, population 9,000, located one hour south of Minneapolis. Contact: Curt Stolee, M.D., or D.A. Nygard, Administrator, St. Peter Clinic, Ltd., 622 Sunrise Drive, St. Peter, Minnesota 56082; (507) 931-2110. (R)

Fargo Clinic
MeritCare

Fargo Clinic—Meritcare, a 240 physician multi-specialty group, is seeking BE/BC physicians in the following specialties for Fargo-Moorhead and the regional area:

ADOLESCENT MEDICINE
CARDIOLOGY
CHILD PSYCHIATRY
GERIATRICS
PEDIATRIC ORTHOPEDIC SURGERY
PULMONOLOGY/CRITICAL CARE
RADIOLOGY-THERAPEUTIC & DIAGNOSTIC
ANESTHESIOLOGY
CHILD NEUROLOGY
FAMILY PRACTICE
NEUROSURGERY

Fargo Clinic
MeritCare

Contact Robert C. Montgomery, M.D.,
Chairman, Physician Recruitment
737 Broadway, Fargo, ND 58123

Bemidji, Minnesota: Excellent opportunities for well-trained physicians. We are seeking board-certified/board-eligible physicians in orthopedic surgery, family practice, ophthalmology, pediatrics, and otolaryngology to join a young 24-physician multispecialty group practice located in northern Minnesota. Competitive salary guarantee plus incentive first year and excellent benefits. An excellent opportunity for a physician to enjoy practice in the center of hunting, fishing, and clear air. Please respond with CV to: C.C. Lowery, Administrator, Bemidji Clinic-MeritCare, 1233 34th Street NW, Bemidji, Minnesota 56601; (218) 751-1280. (R)

Family Physician to join medical staff of two family practitioners in well-established rural clinic in central Minnesota, along the southern shores of beautiful Mille Lacs Lake. Excellent subspecialty support, progressive community hospital, diverse patient population. Call collect, (612) 676-3661, or write c/o Nancy Swenson, Clinic Manager, Mille Lacs Family Health Center, PO Box 53, Isle, Minnesota 56342. (R)

Outstanding Opportunity for a BE/BC Family Physician to join a progressive medical community with eight physicians oriented to family practice. Details will be given by contacting: Dr. Tim Schmitt, Wadena Medical Center; (218) 631-1360; or Jim Lawson, Administrator, Tri-County Hospital, Wadena, Minnesota 56482; (218) 631-3510. (R)

Family Practice: Two BC/BE family practitioners needed to join three progressive physicians for expanding central Minnesota practice. Offering $75,000 first year salary and full corporate membership after one year. Contact: Paul Van Gorp, M.D., (612) 732-2131. 4-4/89

Internist BE/BC: North Shore Internal Medicine, PC is seeking an energetic general internist to enjoy the benefits of a rapidly expanding practice. New office close to hospital. Michigan State Medical School Campus. Send resume to: 2420 First Avenue South, Escanaba, Michigan 49829; (906) 786-1563. (R)

BE/BC Psychiatrist: Excellent opportunity to join a well-established, progressive, 19-physician multispecialty group (9 FP, 4 IM, 2 OB/GYN, 1 Peds, 2 Surg) located in an economically sound community of 20,000 (drawing area of 30,000), 65 miles south of Twin Cities. Full membership after one year. One FP retiring in 1987. Competitive salary and fringe benefit package. Contact: Ed Durst, M.D., or Terry Tone, Administrator, 134 Southview, Owatonna, Minnesota 55060; (507) 451-1120. (R)

Psychiatrist: An opening exists for a general psychiatrist with Hennepin Faculty Associates. Salary and benefits are generous. Requirements are board eligibility, Minnesota licensure and potential for appointment in the Department of Psychiatry at the University of Minnesota. Position involves mainly inpatient and some outpatient care of acutely ill patients. This would be in association with over a dozen other full-time psychiatrists engaged in clinical care, teaching, research and forensics. The University of Minnesota and Hennepin County Medical Center are equal opportunity educators and employers and specifically invite and encourage applications from women and minorities. Contact: William W. Jepson, M.D., Chief of Psychiatry, Hennepin County Medical Center, 701 Park Avenue South, Minneapolis, Minnesota 55415; (612) 347-5764. (R)

Family Practitioner to join a progressive 12-physician group practice. Rural college town 30 miles from St. Paul, Minnesota, with community hospital. Contact: R.M. Hammer, M.D., River Falls, Wisconsin 54022; (715) 425-6701 or (612) 436-8809. (*R)

Family Physician: Full-time or part-time positions staffing Convenience Care Medical Center. Competitive salary plus malpractice insurance. Call or write: Richard Gebhart, M.D., Grove Square Convenience Care, 13800 83rd Way, Maple Grove, Minnesota 55369; home (612) 420-6912, or work (612) 420-5822. 9-9/89

General Internist: The St. Cloud Medical Group located in central Minnesota has an immediate opening for a general internist to join a 24-physician multispecialty group in St. Cloud, Minnesota. The Department of Internal Medicine currently has two board-certified internists and is in the process of recruiting two additional board-certified internists to that department. This opportunity affords a general internist a great financial and working opportunity. St. Cloud is one of the fastest-growing communities in the state of Minnesota and is home to three major colleges. It is geographically located to provide quick access to the metropolitan Twin Cities area. The St. Cloud community has excellent school systems available to the individual physician and his or her family members. If interested in this excellent opportunity, please call collect: either Dr. Ronald Elg and/or Daryl G. Mathews, Adminstrator, at (612) 251-8181, and/or send curriculum vitae to: St. Cloud Medical Group, PA, 1301 West St. Germain Street, St. Cloud, Minnesota 56301. 4-4/89

Orthopedic Surgeon: Board-certified/eligible for a solo practice opportunity on the southern edge of the Dallas-Fort Worth, Texas, metroplex. Enjoy country living in a community of 16,000+ growing to 25,000 by 1995. Fifteen minutes to downtown Fort Worth. Thirty-five minutes to downtown Dallas. Thirty minutes to DFW Airport. With easy access into the metroplex, enjoy suburban living while enjoying all the activities of the metroplex. Interested physicians contact: Merle Hansen, Administrator, Mansfield Hospital, 1802 Highway 157 North, Mansfield, Texas 76063; (817) 473-6101. 6-6/89

St. Cloud— Minnesota's fastest growing city—family practice physician, two pediatricians, two ob/gyns, BE/BC to join supportive primary care staff in a growing, successful, and innovative prepaid practice. New clinic facility. Full range of fringe benefits (competitive salary, liberal vacation, two weeks' education leave, retirement fund, etc.). Contact: Physician Services, Central Minnesota Group Health Plan, 1245 15th Street North, St. Cloud, Minnesota 56303; (612) 253-5220. An equal opportunity employer. (R)

1989 CME Cruise/Conferences on Medicolegal Issues & Risk Management: Caribbean, Mexico, Alaska/Canada, China/Orient, Scandinavia/Russia, Mediterranean, Black Sea, Trans Panama Canal. Approved for 24-28 CME Category 1 Credits (AMA/PRA) and AAFP prescribed credits. Excellent group rates on finest ships. Pre-scheduled in compliance with IRS requirements. Information: International Conferences, 189 Lodge Avenue, Huntington Station, New York 11746; 1-800-521-0076 or (516) 549-0869. *3-4/89

Robert William James & Associates has been providing physician search services to client organizations since 1977. We are currently seeking physicians in virtually all specialty areas for health care clients throughout the country. Fees are assumed by our clients. All inquiries are handled in a professional and confidential manner. For further information, contact: John S. Shonyo, CPC, Physician Recruiter, Robert William James & Associates, 2360 North Broadway, Rochester, Minnesota 55904; (507) 285-9270. Offices located nationwide. (*R)

Physicians-All Specialties: Excellent opportunities nationwide. We specialize ONLY in physician placement! Call Earl Czech (612) 754-2556. North Central Staff Services, Inc., 11000 Central Avenue NE, #207, Minneapolis, Minnesota 55434. 6-9/89

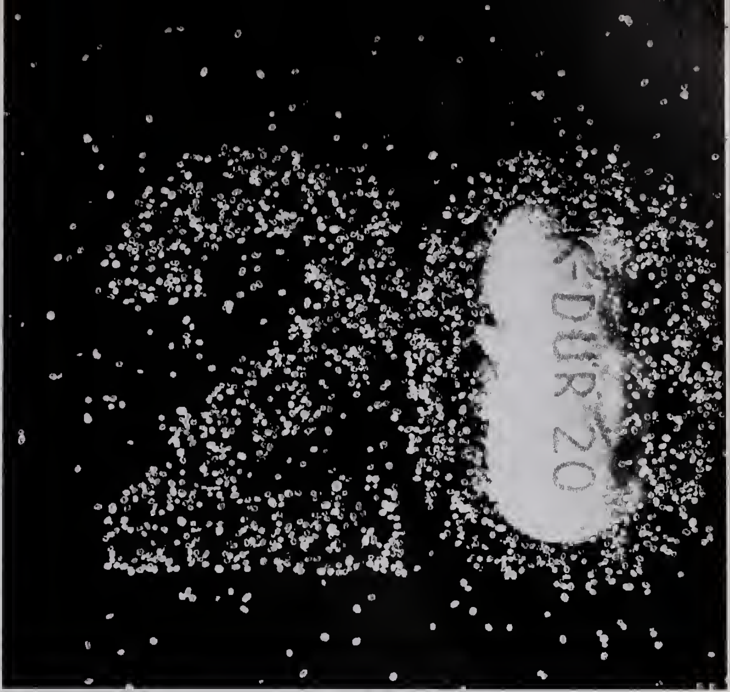
Two Radiologists Needed to join expanding four-person group in Duluth, Minnesota. Competence required in general radiology, US, CT, nuclear, interventional, mammography. MRI helpful. Competitive salary leading to full partnership. Generous fringes. Send inquiry with CV to: F. Ekberg, M.D., St. Luke's Hospital, 915 East First Street, Duluth, Minnesota 55805. 3-4/89

Arizona-based Physician Recruitment firm has quality opportunities NATIONWIDE. Available positions in primary care and surgical specialities: OB/GYN, IM, ORTHOPEDICS, ENT. "Quality Physicians for Quality Clients since 1972." Call (602) 990-8080 or send CV to: Mitchell & Associates, Inc., PO Box 1804, Scottsdale, Arizona 85252. (*R)

Waseca, Minnesota: Family practice physician to join four family practitioners. Population 8,000. One hour south of Burnsville Center; lakes; industry. Salary negotiable. Clinic-adjacent hospital. Ample free time to enjoy family life. Contact: James W. Dey, M.D., or Ruth Hawker, 501 North State Street, Waseca, Minnesota 56093; (507) 835-3110. (R)

Psychiatrist/Chemical Dependency: Psychiatrist interested in chemical dependency needed to join 220-physician multispecialty group with adjacent 447-bed hospital. Position includes inpatient services for chemical dependency unit with full range of outpatient chemical dependency services available: evaluation and detoxification unit; outpatient chemical dependency clientele and follow up; general psychiatric practice also available. Behavioral Medicine Department is currently staffed by seven psychiatrists, one child/adolescent psychiatrist, and two psychologists. New clinic building recently completed. Gundersen Clinic, Ltd., is located in La Crosse, Wisconsin, a progressive community of 50,000. Built along the shores of the Mississippi River amid scenic bluffs, the city offers excellent recreational facilities. Numerous educational and cultural opportunities are provided by an expanding university with undergraduate and graduate degree programs, and a private liberal arts college. Excellent pension program, no investment required. Service organization. Write: Philip J. Dahlberg, M.D., Chairman, Personnel Committee, Gundersen Clinic, Ltd., 1836 South Avenue, La Crosse, Wisconsin 54601. An equal opportunity employer. *1-4/89

Internal Medicine: Wanted, locum tenens on intermittent or periodic basis; or associate wanted; or will sell. Phone (612) 252-7790. Top salary—you name it. (R)



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A daily prophylactic dose in a single tablet.

Please see next page for brief summary of prescribing information.

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World leader in drug delivery systems.

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K-DUR™ Microburst Release System™
(potassium chloride) Sustained Release Tablets

INDICATIONS AND USAGE: BECAUSE OF REPORTS OF INTESTINAL AND GASTRIC ULCERATION AND BLEEDING WITH SLOW-RELEASE POTASSIUM CHLORIDE PREPARATIONS, THESE DRUGS SHOULD BE RESERVED FOR THOSE PATIENTS WHO CANNOT TOLERATE OR REFUSE TO TAKE LIQUID OR EFFERVESCENT POTASSIUM PREPARATIONS OR FOR PATIENTS IN WHOM THERE IS A PROBLEM OF COMPLIANCE WITH THESE PREPARATIONS.

1. For therapeutic use in patients with hypokalemia with or without metabolic alkalosis, in digitalis intoxication and in patients with hypokalemic familial periodic paralysis.
2. For the prevention of potassium depletion when the dietary intake is inadequate in the following conditions: Patients receiving digitalis and diuretics for congestive heart failure, hepatic cirrhosis with ascites, states of aldosterone excess with normal renal function, potassium-losing nephropathy, and with certain diarrheal states.
3. The use of potassium salts in patients receiving diuretics for uncomplicated essential hypertension is often unnecessary when such patients have a normal dietary pattern. Serum potassium should be checked periodically, however, and if hypokalemia occurs, dietary supplementation with potassium-containing foods may be adequate to control milder cases. In more severe cases supplementation with potassium salts may be indicated.

CONTRAINDICATIONS: Potassium supplements are contraindicated in patients with hyperkalemia since a further increase in serum potassium concentration in such patients can produce cardiac arrest. Hyperkalemia may complicate any of the following conditions: Chronic renal failure, systemic acidosis such as diabetic acidosis, acute dehydration, extensive tissue breakdown as in severe burns, adrenal insufficiency, or the administration of a potassium-sparing diuretic (e.g., spironolactone, triamterene).

Wax-matrix potassium chloride preparations have produced esophageal ulceration in certain cardiac patients with esophageal compression due to enlarged left atrium.

All solid dosage forms of potassium chloride supplements are contraindicated in any patient in whom there is cause for arrest or delay in tablet passage through the gastrointestinal tract. In these instances, potassium supplementation should be with a liquid preparation.

WARNINGS: Hyperkalemia—In patients with impaired mechanisms for excreting potassium, the administration of potassium salts can produce hyperkalemia and cardiac arrest. This occurs most commonly in patients given potassium by the intravenous route but may also occur in patients given potassium orally. Potentially fatal hyperkalemia can develop rapidly and be asymptomatic. The use of potassium salts in patients with chronic renal disease, or any other condition which impairs potassium excretion, requires particularly careful monitoring of the serum potassium concentration and appropriate dosage adjustment.

Interaction with Potassium Sparing Diuretics—Hypokalemia should not be treated by the concomitant administration of potassium salts and a potassium-sparing diuretic (e.g., spironolactone or triamterene) since the simultaneous administration of these agents can produce severe hyperkalemia.

Gastrointestinal Lesions—Potassium chloride tablets have produced stenotic and/or ulcerative lesions of the small bowel and deaths. These lesions are caused by a high localized concentration of potassium ion in the region of a rapidly dissolving tablet, which injures the bowel wall and thereby produces obstruction, hemorrhage or perforation.

K-DUR tablets contain micro-crystalloids which disperse upon disintegration of the tablet. These micro-crystalloids are formulated to provide a controlled release of potassium chloride. The dispersibility of the micro-crystalloids and the controlled release of ions from them are intended to minimize the possibility of a high local concentration near the gastrointestinal mucosa and the ability of the KCl to cause stenosis or ulceration. Other means of accomplishing this (e.g., incorporation of potassium chloride into a wax matrix) have reduced the frequency of such lesions to less than one per 100,000 patient years (compared to 40–50 per 100,000 patient years with enteric-coated potassium chloride) but have not eliminated them. The frequency of GI lesions with K-DUR tablets is, at present, unknown. K-DUR tablets should be discontinued immediately and the possibility of bowel obstruction or perforation considered if severe vomiting, abdominal pain, distention, or gastrointestinal bleeding occurs.

Metabolic Acidosis—Hypokalemia in patients with metabolic acidosis should be treated with an alkalinizing potassium salt such as potassium bicarbonate, potassium citrate, potassium acetate, or potassium gluconate.

PRECAUTIONS: The diagnosis of potassium depletion is ordinarily made by demonstrating hypokalemia in a patient with a clinical history suggesting some cause for potassium depletion. In interpreting the serum potassium level, the physician should bear in mind that acute alkalosis per se can produce hypokalemia in the absence of a deficit in total body potassium while acute acidosis per se can increase the serum potassium concentration into the normal range even in the presence of a reduced total body potassium. The treatment of potassium depletion, particularly in the presence of cardiac disease, renal disease, or acidosis requires careful attention to acid-base balance and appropriate monitoring of serum electrolytes, the electrocardiogram, and the clinical status of the patient.

Laboratory Tests: Regular serum potassium determinations are recommended. In addition, during the treatment of potassium depletion, careful attention should be paid to acid-base balance, other serum electrolyte levels, the electrocardiogram, and the clinical status of the patient, particularly in the presence of cardiac disease, renal disease, or acidosis.

Drug Interactions: Potassium-sparing diuretics; see **WARNINGS.**

Carcinogenesis, Mutagenesis, Impairment of Fertility: Long-term carcinogenicity studies in animals have not been performed.

Pregnancy Category C: Animal reproduction studies have not been conducted with K-DUR. It is also not known whether K-DUR can cause fetal harm when administered to a pregnant woman or can affect reproduction capacity. K-DUR should be given to a pregnant woman only if clearly needed.

Nursing Mothers: The normal potassium ion content of human milk is about 13 mEq per liter. Since oral potassium becomes part of the body potassium pool, so long as body potassium is not excessive, the contribution of potassium chloride supplementation should have little or no effect on the level in human milk.

Pediatric Use: Safety and effectiveness in children have not been established.

ADVERSE REACTIONS: One of the most severe adverse effects is hyperkalemia (see **CONTRAINDICATIONS, WARNINGS, and OVERDOSAGE).** There have also been reports of upper and lower gastrointestinal conditions including obstruction, bleeding, ulceration, and perforation (see **CONTRAINDICATIONS** and **WARNINGS);** other factors known to be associated with such conditions were present in many of these patients.

The most common adverse reactions to oral potassium salts are nausea, vomiting, abdominal discomfort, and diarrhea. These symptoms are due to irritation of the gastrointestinal tract and are best managed by taking the dose with meals or reducing the dose.

Skin rash has been reported rarely.

OVERDOSAGE: The administration of oral potassium salts to persons with normal excretory mechanisms for potassium rarely causes serious hyperkalemia. However, if excretory mechanisms are impaired or if potassium is administered too rapidly intravenously, potentially fatal hyperkalemia can result (see **CONTRAINDICATIONS** and **WARNINGS**). It is important to recognize that hyperkalemia is usually asymptomatic and may be manifested only by an increased serum potassium concentration and characteristic electrocardiographic changes (peaking of T-waves, loss of P-waves, depression of S-T segment, and prolongation of the QT-interval). Late manifestations include muscle-paralysis and cardiovascular collapse from cardiac arrest.

Treatment measures for hyperkalemia include the following:

1. Elimination of foods and medications containing potassium and of potassium-sparing diuretics.
2. Intravenous administration of 300 to 500 ml/hr of 10% dextrose solution containing 10–20 units of insulin per 1,000 ml.
3. Correction of acidosis, if present, with intravenous sodium bicarbonate.
4. Use of exchange resins, hemodialysis, or peritoneal dialysis.

In treating hyperkalemia, it should be recalled that in patients who have been stabilized on digitalis, too rapid a lowering of the serum potassium concentration can produce digitalis toxicity.

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Immediate Opening: Family practice physician BC/BE to replace retiring physician and join our team of caring professionals providing primary care medical services in a well-established facility. Competitive salary plus incentive pay, choice location, and excellent benefits (malpractice insurance included). Interested candidates should send CV to: Robbinsdale Clinic, 3819 West Broadway, Minneapolis, Minnesota 55422; (612) 533-2534. (R)

Emergency Medicine—Dubuque: Opening available for qualified individual to join incorporated group of three BC/BE emergency physicians. Unique and enjoyable practice, excellent compensation, complete career opportunities, and highly livable community. Write: NET, PC; c/o Mercy Health Center, Emergency Department, Dubuque, Iowa 52001; or call: Mark Singsank, M.D., (319) 589-9666. 3-5/89

The St. Cloud Clinic of Internal Medicine, Ltd.: Opportunities available in a 20-physician clinic of specialists and subspecialists of internal medicine for a BC/BE endocrinologist and a BC/BE pulmonologist. The St. Cloud Clinic is located in a new building on the St. Cloud Hospital campus, with access to the latest medical technological developments. For more information about these positions, please contact: Brad E. Currier, M.D., or Mark Murphy, Administrator, The St. Cloud Clinic of Internal Medicine, Ltd., 1200 Sixth Avenue North, St. Cloud, Minnesota 56303; (612) 252-5131. 3-5/89

Practice Opportunities Available for internal medicine, occupational health, ob/gyn, and family practice physicians to join a 20-physician multispecialty primary care clinic with multiple sites in northern suburbs of Twin Cities. Practice is predominately fee for service. Main clinic is located adjacent to Unity Hospital. Competitive starting salary with generous fringe benefit package. For additional information, contact: Dr. Kevin Bailey at (612) 786-2700, or send CV to: Jeannine Schlottman, Administrator, 7676 Madison Street NE, Fridley, Minnesota 55432. 3-5/89

Pediatrician: Three-physician, well-established pediatric practice seeking BC/BE pediatrician to replace partner retiring July 1989. Excellent Minneapolis location. Affiliated full-service Children's Hospital with training program. Excellent salary and early partnership. Contact: Mary Ann Densmore, Administrator, Pediatric Services, P.A., 301 Kenwood Parkway, Minneapolis, Minnesota 55403; (612) 377-2261. 3-5/89

Urgent Care positions currently available with Aspen Medical Group in Bloomington and St. Paul. Evenings, weekends, and days. Contact: Maureen Reed, M.D., Chief of Staff, Aspen Medical Group, 1295 Bandana Boulevard North, Suite 310, St. Paul, Minnesota 55108; or call (612) 642-2707. *3-5/89

BC/BE Internist needed to join busy 13-doctor multispecialty group in clean North Dakota lake country. Salary and fringe benefits very liberal. Send CV or inquiries to: Lake Region Clinic, PC, PO Box 1100, Devils Lake, North Dakota 58301, Attn: Joel Rotvold; or call collect at (701) 662-2157 for further information. *3-5/89

General Medicine: Position available with Cancer Detection Center at University of Minnesota. Clinic focus is on health-risk screening and assessment. Hourly wage. Part-time flexible hours. No weekends. No call. Current Minnesota license required. For more information, call/write: Dr. Donald Stewart, Director, Box 99, University of Minnesota Hospital, Minneapolis, Minnesota 55455; (612) 625-6970. *2-4/89

Family Practice/Internal Medicine: Attractive opportunities for BC/BE family practice and internal medicine physicians in Michigan and Wisconsin. Contact: Bob Strzelczyk to discuss your practice requirements and these positions. Strelcheck & Associates, Inc., 12724 North Maplecrest Lane; Mequon, Wisconsin 53092; (414) 243-9500 (collect). Outside Wisconsin (800) 243-4353. *2-4/89

Pediatrician: Board certified or board eligible to join 21-physician multispecialty group. Suburban/rural setting 25 miles west of Minneapolis. Large geographical referral area. Comprehensive benefit package with excellent remuneration. Recreational activities and lakes nearby. Contact: Katherine Hacket, M.D., or Robert W. Wilcox, Administrator, Lakeview Clinic, Ltd., 424 State Highway 5 West, Waconia, Minnesota 55387. 2-4/89

FP Needed to join four in growing practice in city of 40,000. We provide full spectrum of FP services. Opportunity for full partnership after one year. Contact: Tony Giefer, M.D., 1695 LorRay Drive, North Mankato, Minnesota 56001; (507) 387-8231. 9-11/89

Family Practice: The University of Illinois College of Medicine at Rockford is seeking to develop a family medicine group practice in a family-practice-oriented northern Illinois community. Outstanding opportunity for someone desiring professional fulfillment, community involvement, and personal recognition. Major mid-western cities and recreational areas within easy driving distance. University and local hospital will provide facilities, staff, and business systems to support successful practice. Position includes faculty appointment, university benefits, and salary guarantee. Qualified physicians should send their CV to: Department of Family & Community Medicine, University of Illinois College of Medicine at Rockford, 1601 Parkview Avenue, Rockford, Illinois 61107. The University of Illinois is an Equal Opportunity Employer. *2-5/89

Latex Gloves Latex Gloves. Latex Gloves. Latex Gloves: Excellent quality, FDA-accepted. $200/case. 2,000 count. S-M-L. Satisfaction guaranteed. MEDSON INTERNATIONAL. Minneapolis (612) 560-0301, 1-800-366-1789. (*R)

General Internist BC/BE to join progressive seven-physician practice in southwest suburban metro location. Competitive salary, reasonable call schedules, excellent hospital staffs, summer start. Contact: Dr. Bruce Nydahl, 225 Southdale Medical Building, Edina, Minnesota 55435; (612) 920-2696. 1-4/89

The Minnesota Board of Medical Examiners has issued an RFP for a study of prevailing community standards for the prescription of controlled substances. Interested potential bidders should contact: H. Leonard Boche, Executive Director, Minnesota Board of Medical Examiners, Suite 106, 2700 University Avenue West, St. Paul, Minnesota 55114-1080; (612) 642-0538. *1-4/89

Student Health Physician/Medical Director: Student Health Service at Mankato State University, starting July 1989. Provide clinical leadership for comprehensive outpatient center that serves adolescent and adult students. BC/BE, preferably family practice or internal medicine, Minnesota license or eligible. Salary competitive, excellent benefits. MSU, located 80 miles south of Minneapolis/St. Paul, enrolls 15,800 students. MSU is actively seeking staff that will enrich its cultural, racial, and ethnic communities. Send application letter, CV, and the names, addresses, and phone numbers of three references by April 14 (or until position filled) to: Dr. Donald Craig, Director, Counseling and Health Services, Box 21, Mankato State University, Mankato, Minnesota 56001; (507) 389-6276. 1-4/89

General Internist: Park Nicollet Medical Center is a 280-physician multispecialty clinic in Minneapolis. Our general medicine sections

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Group Health also offers a competitive salary and benefits package. For more information, please call Judy Meath, Director, Physician Services at (612) 623-8444 or send in confidence your curriculum vitae to Physician Services, Group Health, Inc., 2829 University Avenue S.E., Minneapolis, MN 55414.

are expanding in both urban and suburban locations. We offer competitive salaries and excellent benefits. If you are a BC/BE general internist interested in a group practice setting, send your CV to: Robert Lohr, M.D., Chairman, Department of Internal Medicine, Park Nicollet Medical Center, 5000 West 39th Street, Minneapolis, Minnesota 55416. *1-4/89

Family Practice Physician: Southside Community Clinic, Inc. is seeking an experienced family practice physician to serve as medical director. The clinic is a private, not-for-profit corporation serving people of south central and southwest Minneapolis. The position offers competitive salary plus incentives and excellent opportunity to expand your scope of practice. Please contact: Deanna Mills, 4243 4th Avenue South, Minneapolis, Minnesota 55409; (612) 822-3282. 1-4/89

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MINNESOTA MEDICINE

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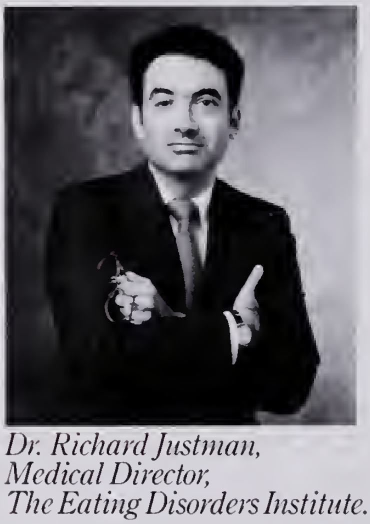
Professionally Speaking:

"Eventually, every person with an eating disorder will seek help for physical symptoms."



Dr. Richard Justman,
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MINNESOTA MEDICINE

MAY 1989

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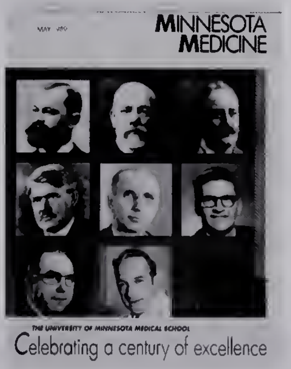
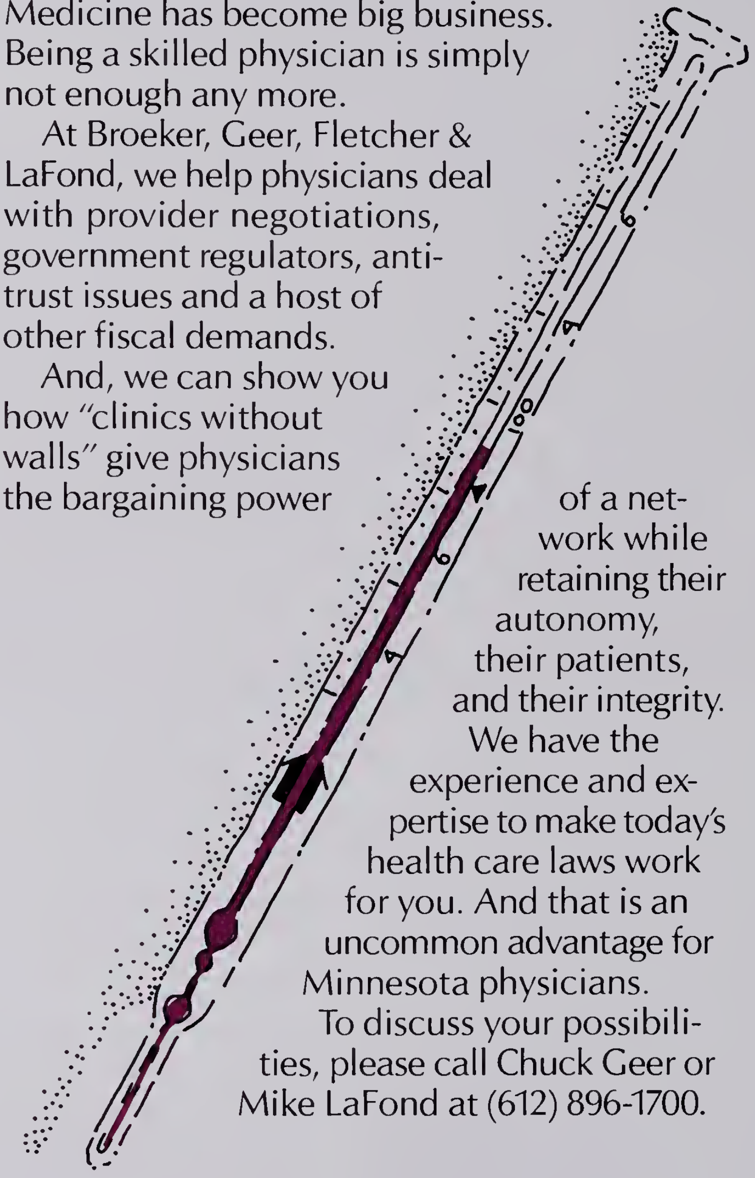

MINNESOTA MEDICINE
THE UNIVERSITY OF MINNESOTA MEDICAL SCHOOL
Celebrating a century of excellence

Cover Design

HAPPY ANNIVERSARY This year the University of Minnesota Medical School celebrates its 100th anniversary — a century marked by innovation, opportunity, and achievement for medical educators and students alike. Featured on this month's cover are the school's deans: Perry H. Millard, A. Parks Ritchie, Frank F. Wesbrook, Elias Potter Lyon, Harold S. Diehl, Robert B. Howard, Neal L. Gault Jr., and the current dean, David M. Brown, who is interviewed in this issue (page 260), and Medical Hall, the university's first medical building.

What's happening to doctors today is enough to make you sick.



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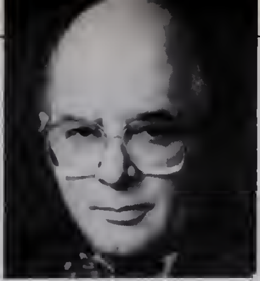

RICHARD L. REECE, M.D.

EDITOR'S NOTEBOOK

Academia and the Real World
Or, There is Only One 'U' and a Whole Lot More

"There is only one 'U,' " proclaims the radio advertisement for the University of Minnesota Hospital and Clinic. The ad has the ring of truth, and from the length of time it has been running, I gather the ad has been effective. The University of Minnesota health sciences complex, located on the Twin Cities campus, is huge, sprawling, and impressive.

The "U" medical establishment, which also helps run Duluth's medical school, dominates the medical education landscape of Minnesota.

Two Interviews

I spoke with two health sciences physician executives for this issue of *Minnesota Medicine*. One of these executives has spent his professional life within the ivory tower, looking out at the real world and explaining to that world what happens in his world; the other has spent his career straddling and bridging the town-gown gap, demonstrating that the gap isn't as wide as it's perceived to be.

The first interview is with David Brown, M.D., who for the last four and one-half years has been dean of the medical school. The second is with William Jacott, M.D., assistant vice president for health sciences and an associate professor of family practice. Two unrelated events prompted these interviews: the 100th anniversary of the founding of the University of Minnesota Medical School, which Dr. Brown celebrates in his remarks; and Dr. Jacott's candidacy for a position on the Board of Trustees of the American Medical Association, a singular honor for any physician active in medical politics.

Jarring Juxtaposition

For a few of you readers, this juxtaposition of an academic and a political event will jar your sensibilities. After all, say purists, academia and medical politics are like oil and water. Perhaps. But they share this in common: the public is increasingly holding academic medical centers and practicing physicians accountable for their economic performance. It doesn't surprise me, for example, that the university appointed Gus Donhowe, former chief executive officer of Fairview Hospitals and former chief financial guru for the state of Minnesota, as its senior vice president for finance and operations. Nor does it surprise me that Neal Vanselow, M.D., the departed university vice president for health sciences, has yet to be replaced. What I'm suggesting is that the university and the state are pondering and searching for ways to make the university's health sciences center financially more accountable.

Oiling the Real World

Oil and water may not mix, but there are occasions in the real world in which academicians must oil the politicians, the referral services, or third-party payers—the denizens of the real world—or water down their academic ambitions for their teaching and research missions.

But mixing oil and water isn't easy, especially when the mix is made more turbulent by a competitive medical marketplace that threatens to dry up referral revenues. A university medical center must balance social responsibilities against fiscal stability, research and teaching against clinical services that generate referrals. On the other hand, without profit, or its equivalent in a nonprofit setting, there may be no mission, or no control of the mission. In Louisville, Humana Inc. manages the university hospital. In Chicago, the University of Illinois hospital has been closed and merged into the Michael Reese Hospital and Medical Center. And, so, even academic institutions must pay attention to their business side as well as their teaching and research sides.

> **"Perhaps more than any other institution in our society, the university community distrusts commercialism. The mission, after all, is more knowledge, not more income."**

This paying attention to, or even promoting, revenue sources creates tremendous tensions within a university. Perhaps more than any other institution in our society, the university community distrusts commercialism. The mission, after all, is more knowledge, not more income. Besides, argue knowledge-workers within universities, their knowledge belongs in the public domain, i.e., it is not proprietary. Anyway, the university, being

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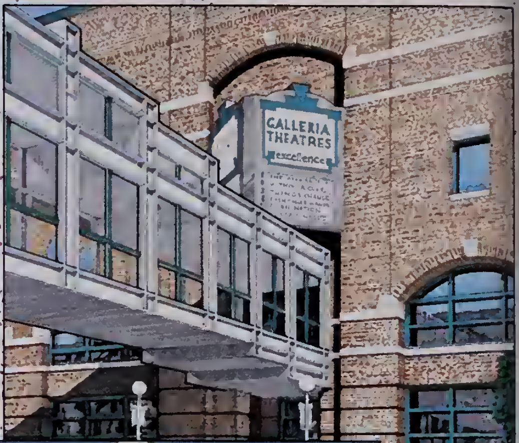
We've just spent $500 million on spectacular gems for you.



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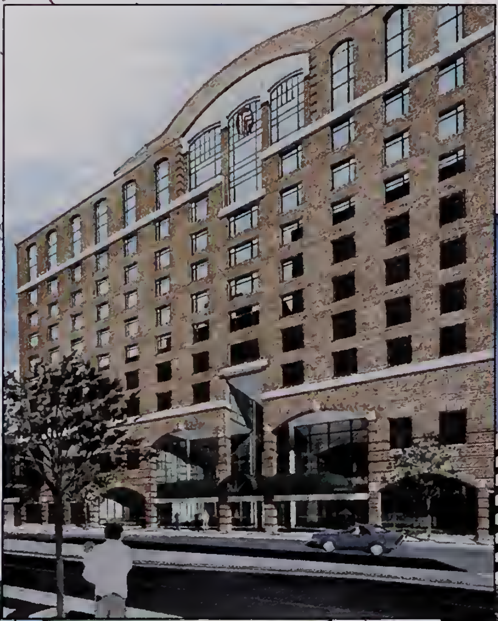

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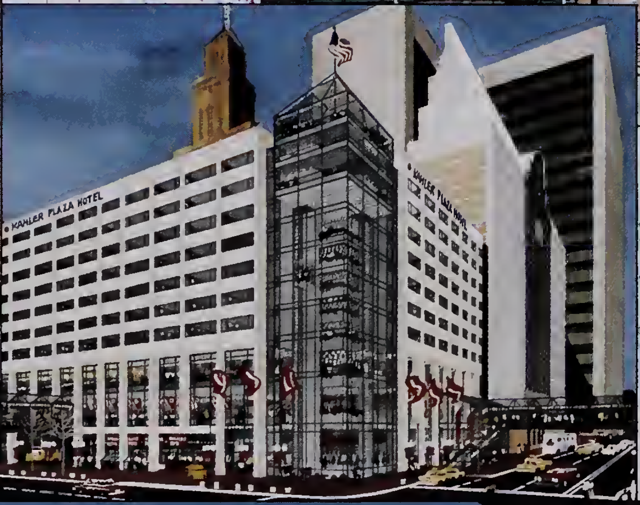

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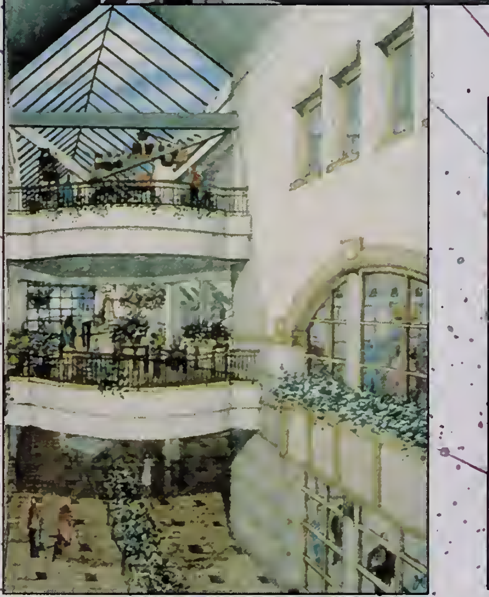

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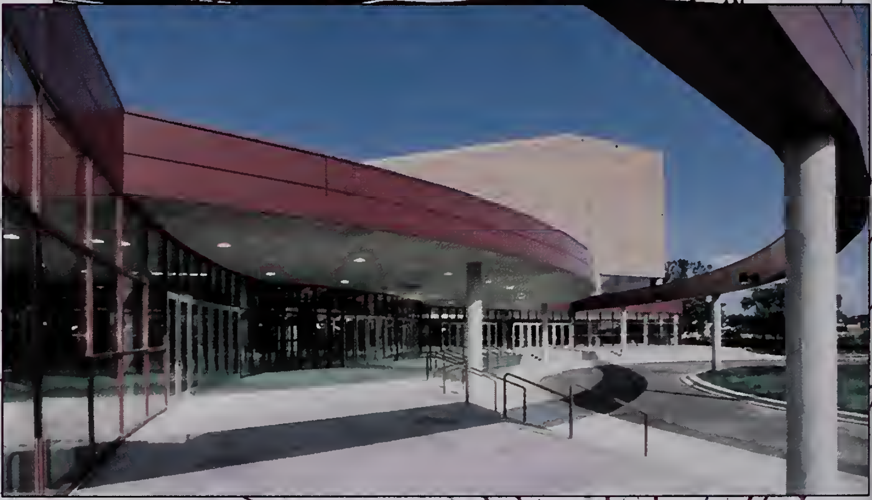

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	27	**Headaches**

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First Among Equals

REECE: *Dean Brown, this is the 100th year of the University of Minnesota Medical School. What is the state of the medical school? What condition is it in as we enter its second century?*

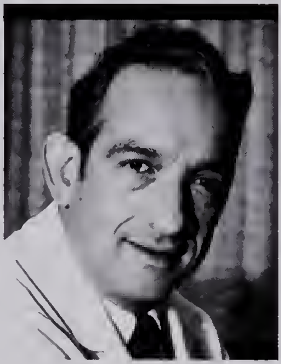
BROWN: The University Medical School is in good shape. We are building upon the traditions of the past century. It's important to note that Abraham Flexner referred to the University of Minnesota Medical School in Minneapolis as one of only a handful of strong educational institutions at the turn of the century that had already developed an extensive, full four-year curriculum and a new university hospital. During that 100 years, we developed strong programs in education, research, and service. These have served the state and the nation extraordinarily well.

The accomplishments have made us successful in both research and education. The big challenge now is to spring into the next 100 years from a position of strength. In that context, we're very much a part of the larger university, whose fortunes depend upon acceptance by the state. That acceptance includes financial support so that we can continue to compete for increasingly hard-to-come-by research and education funds.

REECE: *Give us an idea of the magnitude of the effort of the medical school. How many students do you have? How many faculty members? How do you rank nationally in research grants?*

BROWN: We have about 3,000 students within the medical school, including 1,000 medical students, and residents, fellows, graduate students, and allied health students. The latter include students in occupational therapy, physical therapy, radiation technology, and laboratory technology. The medical school's expenditures in the 1987-88 fiscal year were $150 million, 25 percent of which was covered by the state

Brown *to page 298*



DAVID M. BROWN, M.D.

In my pre-interview chat with U of M Medical School Dean David Brown, I asked what he was currently reading. He told me he was reading a history of the Florida Everglades.

When he referred to the Everglades, my thoughts flashed back to an October 1985 Minnesota Medicine *editorial I wrote entitled "Myth-Breaking, Image-Making, and Corporate-Reshaping at the University of Minnesota Hospitals and Medical School." At the time, University of Minnesota academic politics reminded me of a swamp. In piecing together that editorial, I was struck by the complexity of the university medical center, by the conflicts generated by the independent egalitarianism, and by difficulties in getting corporate tasks done in the academic setting. If I may mix my metaphors, a combination of Brownian movement and organizational fibrillation seemed to be the only things moving in the swamp.*

I was wrong, as I often am. Since 1985, the university has made a big success of filling its new hospital, has increased its outstate referrals to its centers of excellence, and has used its medical school faculty business organization, University of Minnesota Clinical Associates, as a mechanism for winning contracts with local managed care organizations and with national insurance firms.

Dean Brown has been a central figure in moving the faculty forward in its business ventures. But he is the first to admit he is more at home in the marshlands of academia, even if the going is slow, mucky, and often sticky. In his heart, he prefers academia to business.

As an academic executive, he knows there is no real control of the faculty. Instead, there is only the power of the dean to bring about decisions through multilateral brokerage between equals who will accept only a collegial, consensual, and consultative approach to decisions.

Still, although control may be loose, power diffused, and centers of decision plural, the dean is first among equals. Which is the way he likes it. The deanship comes naturally to a well-educated swamp fox who enjoys reading and learning about the history of alligators and how they behave in their native habitat.

One Thing Leads to Another

"I predict a bright future for complexity. Have you ever considered how complicated things can get, with one thing always leading to another?"
E. B. White

To hear Bill Jacott tell it, you would guess his career consisted of just one thing leading to another. For instance, when Neal Vanselow, then University of Minnesota vice president for health sciences, phoned Bill in Duluth two years ago to ask him to consider a position as assistant vice president for health sciences, Bill claims the thought of leaving practice to return to an academic position had never occurred to him.

But it took Bill only one night to decide to apply. Life's like that for Bill Jacott—another opportunity, another step up in responsibility, another move up the career ladder, another happy complication in a varied career.

Bill has a résumé as long as his arm and as glistening as his bald scalp. He has performed well in private practice, in helping to set up a medical school, in directing its family practice program, and in serving in local and national arenas for the American Medical Association (AMA). It's just one challenge after another, each more complex, each requiring more executive and political skill than the last.

In the course of his climb up the career ladder, Bill has become a new breed, a physician executive and a medical politician who must balance the "private" against the "public" good, and in the end, "get it all together" in a way that makes sense.

This is what he's up to at the university, as he builds bridges between "town" and "gown," and in the nation as a whole, as he runs for a spot on the AMA's Board of Trustees, where he hopes to help the profession and the public at large. In all these endeavors, based on his past performance, I would bet one complicated thing will lead to another. And William Earl Jacott—through a combination of personality, circumstance, and seizing the moment—will emerge a winning leader.

WILLIAM E. JACOTT, M.D.

REECE: *Dr. Jacott, you've had a distinguished career in medical practice in Minnesota and in medical education. You're currently assistant vice president for health sciences at the University of Minnesota and associate professor in the Department of Family Practice and Community Health at the university. How long have you been at the university and what is your role?*

JACOTT: I've been here for just two years. My primary responsibility is to work in the office of the vice president for health sciences dealing with issues that involve the various health sciences units. These include not only medicine, but pharmacy, dentistry, public health, nursing, and veterinary medicine, and also the medical school in Duluth. Our office deals with legislative issues, budget, the central administration, research.

REECE: *You were in family practice for 22 years. How does one make the switch from family practice to the ivory tower? How did you prepare yourself for this position?*

JACOTT: I was preparing for this position for many years, but I didn't really know it. I was heavily involved in issues of medical education, credentialing, and licensure in addition to the daily practice of medicine.

REECE: *You were active in education, credentialing, and licensure both at the state and national levels. What did you do within the state, and what did you do nationally in medical education?*

JACOTT: Within the state, I helped develop and became the first program director of the family practice residency program in Duluth. In addition, I chaired the section on family medicine for the newly established medical school in Duluth and was one of the

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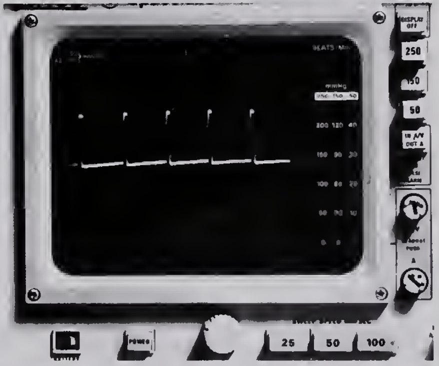

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people involved in developing the Duluth school. I also served for 11 years on the Minnesota Board of Medical Examiners and have been deeply involved in county medical society and state medical association activities.

At the national level, I've been in the Minnesota delegation to the AMA since 1974. Through that, I was elected to the AMA Council on Medical Education and served as its chair for two years. I also was elected to the board of trustees of the Federation of State Medical Boards and subsequently became president of that organization about three years ago.

REECE: *What did you learn in those positions about Minnesota* vis a vis *the nation? Are conditions different here?*

JACOTT: I learned that issues in medicine and health vary from one part of the country to another—not only in health care delivery and in socioeconomic issues, but in manpower and population issues, as well. There's a great variance. I have learned to appreciate the problems of people from other parts of the country, and I have found that I'm proud to be from Minnesota. We're looked upon as a leader in the country in various areas of health care and health care delivery.

REECE: *So your Minnesota experience positioned you well for national responsibility?*

JACOTT: Yes, I think it did. There are some areas where our Minnesota colleagues would say they are not proud to be the leaders. But there are other areas where we've performed impressively.

REECE: *In addition to your academic responsibilities, you're also a candidate for the AMA Board of Trustees. How many members are on that board, and how many candidates are running?*

JACOTT: The Minnesota Medical Association has nominated me as a candidate for the AMA Board of Trustees. There are 14 trustees. This year there are four openings, and seven people are running for those four openings. Two of those seven are incumbent candidates.

REECE: *Is the AMA Board of Trustees like Congress, i.e., the incumbents usually win?*

JACOTT: Yes, very much so. It's very unusual for an incumbent not to win. But occasionally, a good incumbent does not win for one reason or another.

"I have found that I'm proud to be from Minnesota. We're looked upon as a leader in the country in various areas of health care and health care delivery."

REECE: *Realistically, then, you're one of five candidates for two positions?*

JACOTT: That's a fair analysis, and that's the way I am looking at it.

REECE: *How do you prepare to be an AMA trustee? How do you orchestrate your campaign?*

JACOTT: It's almost like the answer to your other question about coming to the university. How did I prepare? In essence, I began preparation for running for the board of trustees when I first became a member of the AMA House of Delegates. The visibility that I have had in the house of medicine through the years, the opportunities to serve on committees, and the chances to speak and interact with the other members have been invaluable in this campaign. There are 433 delegates to the House of Delegates. They represent every state medical society, all the specialty societies, and some of the service organizations. All of those people have a vote, and you have to sustain a majority of the vote. So you do what you can to contact all those people. You contact them individually, you have friends and colleagues contact them, you hold receptions, you send out mailings, you might have some giveaways that will remind them of your candidacy. All of this is done as a team effort by our MMA delegation and staff and people of the North Central Medical Conference.

REECE: *You must also have a platform on how you view certain issues. What do you foresee as the big issues facing American medicine?*

JACOTT: The big issues facing us today deal with external regulation of medicine and the specifics of that regulation. How is the practice of medicine being changed? How is health care delivery being affected by government, by the legal system, by third-party payers? How is it being affected by other social or societal concerns such as the AIDS epidemic and the use of drugs and alcohol? These factors are difficult to control, but all are affecting health care delivery and how we practice medicine. My agenda is to look at the total picture. We can get all concerned about mandatory assignment and the resource based-relative value scale, and those are important issues, but we have to look at them in perspective, in relation to the bigger picture.

REECE: *Another way of defining that concern about external regulation is to define it as intervention by third and fourth parties. Many physicians feel they have lost control of their practice environment. Does that concern the AMA?*

JACOTT: Very much so. Organized medicine has been concerned for a long time about impositions on the doctor-patient relationship. We've seen a deterioration of that relationship. It's up to us to react and to become proactive about protecting it.

REECE: *How does one do that? How does one become "proactive" about the doctor-patient relationship?*

JACOTT: You exhibit concern and knowledge about issues that society and medicine are concerned about together. For example, by being knowledgeable about HIV infection and the care of HIV-infected patients. By being knowledgeable about incompetent physicians and by wanting to do something about incompetency within our professional ranks. By being concerned about entrepreneurial activity within our ranks and about inappropriate charging and inappropriate socioeconomic developments.

REECE: *So you visibly begin to put your own house in order.*

JACOTT: That's right. You put the house in order. And you also keep up with the times. You demonstrate to patients that you're concerned about wellness and preventive medicine, that you know about cholesterol. You show continued concern for the patient and the patient's feelings and the patient's family, in spite of all the external pressures.

REECE: *Let's talk for a moment about the big issues that will surface in Congress this year. One of those issues is entrepreneurialism. Rep. Fortney "Pete" Stark, D-Calif., has introduced a bill that forbids physician referral to institutes in which they have ownership or financial interest. How does one inform the public that you're concerned about that?*

"Right up front we ought to inform the public that we're opposed to physician self-referral for economic gain."

JACOTT: Right up front we ought to inform the public that we're opposed to physician self-referral for economic gain. However, the technologies and services for patients in which a physician may have a financial interest are still technologies; they are services best controlled and monitored by physicians. It's still in the patient's best interest to have diagnostic tests or procedures done in a setting where the physician is involved and familiar with how those procedures are performed. Entrepreneurialism is more risky when outside groups control the technology with which physicians have no familiarity.

REECE: *So, in a sense, physician entrepreneurs should be in control of their own environment to protect the public?*

JACOTT: Yes. Besides, there are more checks and balances today that aren't apparent. As you know, the Joint Commission on Accreditation of Healthcare Organizations (JCAHO) is now going into the outpatient setting, and the American Group Practice Association does significant peer review and audits of all the large multispecialty groups.

REECE: *So the public should be reassured that we do have some mechanisms in place for guarding the public interest?*

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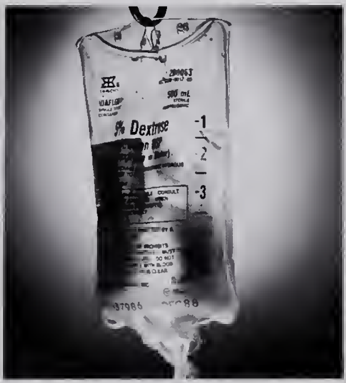

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JACOTT: Many mechanisms are in place, and more are being developed. But, as with everything else, there's a risk of overregulating.

REECE: *One of the problems of American medicine in the last 15 years is a quantum shift in the site of practice from hospitals, which are relatively controlled environments, to outpatient settings, which are difficult to monitor. How is the medical education system going to cope with that shift? Medical students are traditionally trained in hospitals, but they are going to be dealing with outpatients. Is that an issue for the AMA or for the University of Minnesota?*

JACOTT: You bet it is. It's a fundamentally important issue, and I'm glad you asked that. First of all, we have to get everyone in medical education to recognize that it's a reality. Many of the special requirements for training residents and fellows, and now, within medical schools, for educating and training medical students, are focusing on the outpatient setting. Ambulatory care has become exceedingly important, and many traditional bedside teaching programs have shifted their thrust so that a significant portion is taught in the outpatient clinic. That's a terribly important development. The one area where we still do not have a good solution is in the surgical training programs, where the patient comes to the hospital for same-day surgery. The resident or student is expected to have evaluated the patient before surgery is performed. But sometimes the student is greeting the patient for the first time when the patient is being wheeled to the operating room.

REECE: *In academia, you're trying to cope with the fragmentation and the continuity of patient care. In a sense, at the AMA, you have an analogous problem: You're trying to deal with the fragmentation and continuity of medical politics. HMOs, PPOs, and other competing entities have fragmented the profession. About 47 percent of American doctors now belong to the AMA. Is membership declining or growing? Do you see the AMA as a continuing force in the future?*

JACOTT: Membership is growing, and it's growing in all categories within the AMA. Particularly encouraging, student and resident membership is growing. Membership has increased slightly but steadily among practicing physicians. About six or seven states have developed what is known as unified membership, which means you must belong to the state and county medical societies, as well as AMA, if you belong to anything. That's encouraging.

A good example of how the AMA has become important to medicine is how it dealt with the resource-based relative value scale (RBRVS). The AMA has had all specialties and all types of practicing physicians in all states working together to develop a consensus on this important issue. The AMA set up a series of meetings; the board developed a report; the House of Delegates reacted to the report and modified it, commented on it, and finally adopted that report, which is now AMA policy regarding RBRVS.

That report has had a significant impact on the Physician Payment Review Commission and on others. AMA has shown that organized medicine can come up with a significant consensus on an important issue, and more importantly, by doing that, proved that we must continue to have an AMA.

> **"Participation in organized medicine will become more critical to the academic health center as it finds itself increasingly dealing with the external world."**

REECE: *Another field in which the AMA has taken a leadership position is in the setting of clinical standards and standards of quality in conjunction with the Rand Corporation. Do you think that's an important leadership role for the American Medical Association?*

JACOTT: It's very important for the AMA to continue that study. As you know, others are trying to do the same thing—develop practice guidelines and all sorts of standards for clinical practice. The Health Care Financing Administration and the JCAHO are doing it. Somewhere, I think all these paths will meet, so we can arrive at a consensus on clinical guidelines.

REECE: *It reminds me of the title of a novel I read. The title was* Everything that Rises Must Converge. *If you have all these rising forces, they've got to converge at some point. Because of your background and your present dual role in academia and organized medicine, you're ideally situated to bridge differences between those worlds. It's been my perception that AMA membership is lower in academia than the outside world. Is that correct?*

JACOTT: That is correct. People who are in an academic health center do not tend to be members of organized medicine, specifically the AMA. Academic membership in the state associations and county medical societies is higher than in AMA. Participation in organized medicine will become more critical to the academic health center as it finds itself increasingly dealing with the external world. Because of the way health care is developing, I think we'll see an increase in membership as people from the academic setting begin to venture into the community.

REECE: *So as the academic centers are increasingly affected by these externalities and are drawn into the competitive marketplace, they will have more pull in organized medicine. It would behoove them to have such a voice.*

JACOTT: That's correct. Many doctors here at the university already firmly believe that. ■

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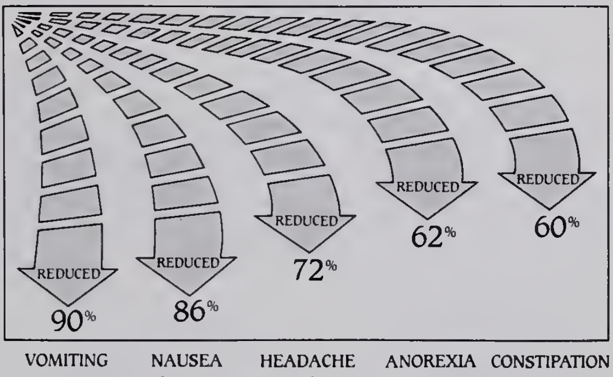

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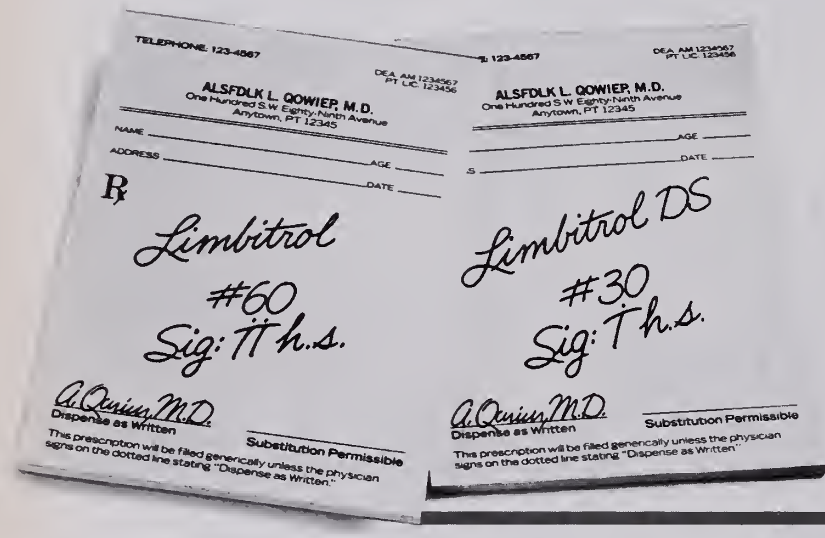

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Adverse Reactions: Most frequent: drowsiness, dry mouth, constipation, blurred vision, dizziness, bloating. Less frequent: vivid dreams, impotence, tremor, confusion, nasal congestion. Rare: granulocytopenia, jaundice, hepatic dysfunction. Others: many symptoms associated with depression including anorexia, fatigue, weakness, restlessness, lethargy.

Adverse reactions not reported with Limbitrol but reported with one or both components or closely related drugs: *Cardiovascular:* Hypotension, hypertension, tachycardia, palpitations, myocardial infarction, arrhythmias, heart block, stroke. *Psychiatric:* Euphoria, apprehension, poor concentration, delusions, hallucinations, hypomania, increased or decreased libido. *Neurologic:* Incoordination, ataxia, numbness, tingling and paresthesias of the extremities, extrapyramidal symptoms, syncope, changes in EEG patterns. *Anticholinergic:* Disturbance of accommodation, paralytic ileus, urinary retention, dilatation of urinary tract. *Allergic:* Skin rash, urticaria, photosensitization, edema of face and tongue, pruritus. *Hematologic:* Bone marrow depression including agranulocytosis, eosinophilia, purpura, thrombocytopenia. *Gastrointestinal:* Nausea, epigastric distress, vomiting, anorexia, stomatitis, peculiar taste, diarrhea, black tongue. *Endocrine:* Testicular swelling, gynecomastia in the male, breast enlargement, galactorrhea and minor menstrual irregularities in the female, elevation and lowering of blood sugar levels, and syndrome of inappropriate ADH (antidiuretic hormone) secretion. *Other:* Headache, weight gain or loss, increased perspiration, urinary frequency, mydriasis, jaundice, alopecia, parotid swelling.

Drug Abuse and Dependence: Withdrawal symptoms similar to those noted with barbiturates and alcohol have occurred following abrupt discontinuance of chlordiazepoxide; more severe seen after excessive doses over extended periods; milder after taking continuously at therapeutic levels for several months. Withdrawal symptoms also reported with abrupt amitriptyline discontinuation. Therefore, after extended therapy, avoid abrupt discontinuation and taper dosage. Carefully supervise addiction-prone individuals because of predisposition to habituation and dependence.

Overdosage: Immediately hospitalize patient. Treat symptomatically and supportively. I.V. administration of 1 to 3 mg physostigmine salicylate may reverse symptoms of amitriptyline poisoning. See complete product information for manifestation and treatment.

How Supplied: *Double strength (DS) Tablets,* white, film-coated, each containing 10 mg chlordiazepoxide and 25 mg amitriptyline (as the hydrochloride salt), and *Tablets,* blue, film-coated, each containing 5 mg chlordiazepoxide and 12.5 mg amitriptyline (as the hydrochloride salt)—bottles of 100 and 500; Tel-E-Dose® packages of 100; Prescription Paks of 50.

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LETTERS TO THE EDITOR

Wanted: Drug Utilization Reviewers

In 1978 the Department of Human Services implemented a Drug Utilization Review (DUR) program. The objective of the program is to improve the quality of care provided to Medicaid recipients by reducing drug therapy failures and drug-induced complications. It is important to note that this is not a fraud-oriented program, but an educational program aimed at providing health care professionals with a more complete picture of their patients' drug therapy.

We are currently looking for physicians interested in reviewing Medicaid recipient medication/diagnosis profiles. Training will be provided. Reviewers will be paid for their services and can work at their own pace. Those interested may call or write me for more information.

Richard Bruzek, Pharm. D.
Director, Drug Utilization Review
Health Services Policy Section
Minnesota Department of Human Services
444 Lafayette Road
St. Paul, Minnesota 55155-3853
(612) 297-2529

In Transition

Dr. Peter and Mrs. Barbara Smyth were kind enough to send me a copy of the February 1989 issue of *Minnesota Medicine*. Peter and Barbara participated in our Physician in Transition Seminar and wanted me to be sure and see your interview with them as well as with Dr. Jon Wempner. I was delighted to hear once again how positive participants in the Physician in Transition Seminar feel about the program. We certainly feel that it provides an opportunity for an outstanding experience and are very happy to do it.

I enjoyed reading both of these articles, and if I can be of any help to you in any way regarding this or any of our other programs, please let me know.

Robert W. Conroy, M.D.
Director
Will Menninger Center for Applied Behavioral Sciences
Topeka, Kansas

The Power of Prayer

We are involved in a study of the therapeutic effects of intercessory prayer and are interested in hearing from anyone who has conducted such work. If you have carried out such a study but have never published the results, could you please contact us? If you have not personally been involved in such a study but know people who have, would you please share their names and addresses with us? Thank you for your cooperation.

Michael Zimmerman, Ph.D.
Professor of Biology
Oberlin College
Oberlin, Ohio 44074
(216) 775-8517 or (216) 775-8315

Jeffrey A. Witmer, Ph.D.
Assistant Professor of Mathematics
Oberlin College
Oberlin, Ohio 44074
(216) 775-8381 or (216) 775-8380

BME Clarification

The Committee on Ethics and Medical-Legal Affairs' report on the Board of Medical Examiners (*Minnesota Medicine*, March 1989) stated, with regard to the initiation of board discipline procedings, "If the identity of the complainant has been held in confidence, the physician will be informed of that person's identity when he or she receives the Notice of Conference." This statement is not accurate. Complainants are afforded complete confidentiality by the Medical Practice Act and other state law. The name of a complainant will not be revealed unless that person specifically agrees to waive that privilege. The Board of Medical Examiners regularly requests that patient complainants waive this confidentiality. The statement in the committee report should have said that the physician will be notified of the names of the patients upon whose records the allegations are based when he or she receives the Notice of Conference.

The Editors

A
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The President's Committee
on Employment of the Handicapped
Washington, D.C. 20036

WELCOME TO THE PORT CITY

MMA ANNUAL MEETING
OPTIONAL EVENTS

GOLF

1:00 p.m., Wednesday, May 17, 1989

The Northland Country Club, 3901 E. Superior Street, Duluth, has been reserved by James Thompson, M.D., Event Chairman. Tee-off time is 1:00 p.m. There is a Guest Fee of $25.00 plus $18.00 for 18 holes or $9.00 for 9 holes. To register contact: Joe O'Connor, Golf Pro, Northland County Club (218) 525-1970. Individual transportation is necessary.

TENNIS

1:30 P.M. - 3:30 P.M., Wednesday, May 17, 1989

Elizabeth Donley (Robert), Event Chairman, has reserved the Duluth Racquet Courts, Ltd, 3732 Rice Lake Road, Duluth for this event. The registration fee is $10.00 and includes refreshments. To register contact: The Duluth Racquet Courts directly (218) 727-6117, registrations are limited to 18. If you need further information, please contact Elizabeth Donley (218) 728-4506. Individual transportation is necessary.

TOUR OF UMD MEDICAL SCHOOL

3:00 P.M. - 4:30 P.M., Wednesday, May 17, 1989

Ronald D. Franks, M.D., Dean, University of Minnesota Duluth Medical School will begin the afternoon with a brief overview of the school, followed by a tour. A short reception will conclude the afternoon. You are also invited to attend Seminars in Medicine which will be held from 4:00 to 5:00 p.m. A shuttle bus will leave from the Radisson Hotel at 2:30 p.m. and depart from UMD at 4:30 p.m. To register: fill out the general registration form included in this brochure.

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PRESIDENT'S INAUGURAL DINNER AND RECEPTION

The President's Inaugural Dinner provides an opportunity to recognize Doctors Lawrence M. Poston and Robert D. Christensen as they pass the Presidential Medallion. The festivities will begin with dinner and strolling musicians in the Great Hall of the Duluth Depot and culminate with a magical trip down memory lane at the "Afterglow Reception" in the Depot Train Museum. The MMA would like to take this opportunity to thank Blue Cross/Blue Shield for their sponsorship of the "Afterglow Reception."

Corporatization Threatens the Ethos of Medicine

Walter W. Benjamin, Ph.D.

When the fledgling American Medical Association wrote its first code of ethics in 1847, it wanted to distance itself from the medical quackery of a frontier, entrepreneurial society where there was a minimum of governmental restraint. Three-fourths of the code dealt with internal affairs and self-protection, a "tidying up," if you will, of a young profession. But advertising, handbills, promises to cure, and the stealing of patients were forbidden, as was the taking of patents on medicine and surgical instruments. One hundred forty years ago, physicians envisioned a profession unsullied by the "rough and tumble," the caveat *emptor,* "let the buyer (the sick) beware," of the business world. Today, however, the corporate mentality, with its market penetration, profit maximizing, leveraged buyouts, strategizing, and advertising, is reshaping a historic medical ethos.

I teach business ethics as well as biomedical ethics. In fact, some of my best friends are in business! Obviously, there is overlap between business and medical realities. But I am troubled that those two worlds are becoming isomorphic. The "medical-industrial" complex is as real as the "military-industrial" complex. Is it as predatory and self-serving?

Arnold Relman, M.D., editor of the *New England Journal of Medicine,* has repeatedly voiced his fears of the rampant entrepreneurialism in medicine today. There are free-standing, physician-owned radiologic imaging centers, ambulatory surgical centers, dialysis clinics, and the like that confer a double benefit: a professional fee, and profit from an enhanced bottom line in a facility where one has a financial interest. I am worried that medical entrepreneurialism will destroy the basic fiduciary role of the physician, that is, to be the patient's agent and trustee.

We can gain insight from historical perspective.

The three faculties of the universities in the Middle Ages were medicine, law, and theology. The word "profession" originally described the religious commitment that a physician, attorney, or priest made upon entering one of the three classic professions. The word "doctor," which comes from a word that means "teacher," was originally applied to teachers of the Church, not to physicians. And hospitals were originally Church institutions that sought to practice the Christian virtue of hospitality.

"The ethos of medicine is different in kind and degree than what we normally associate with business."

Simply put, I worry about collapsing a profession into, as the English say, those "in trade." One cannot have the respect of a "calling," a "vocation," if one is an entrepreneur. To be sure, business is not dirty. But the ethos of medicine is different in kind and degree than what we normally associate with business.

Those who justify entrepreneurial medicine say it is inherent in the fee-for-service system. But ethical physicians minimize it by avoiding self-referral and by the conservative use of tests. Besides, the fee-for-service relationship is above board. Patients who feel ill-used simply don't come back.

In the 1920s and '30s, my father had a back room where he kept a modest store of pills and liquid medicines. Mother told me he sold the expensive pills at cost and doubled the price on the cheap ones. He did it as a convenience for his patients and because the drugstores were terrible. His patients knew the connection.

A colleague of mine is very sensitive to this issue. She requires her students to buy the text she has written but gets the books from her publisher without her royalty.

In business ethics, there is a principle called The Social Law of Responsibility: Where economic power is used in a way that the society feels is unjust, society will curb or restrict that power. Already that is being done in medicine. Michigan now prohibits a physician from referring patients to any facility in which that practitioner has a financial interest. And, in Congress, Rep. Pete Stark, D-Calif., chairman of the House Ways and Means Subcommittee on Health, has reintroduced a bill that prohibits, with certain exceptions, Medicare providers from accepting referrals from physicians who have an ownership interest in or compensation arrangement with the provider. Meanwhile, there are suits against American Medical International for

Medical Ethos *to page 292*

Arthur Madsen and mentor Mary Lampe, ballroom dance instructor.

Medical Mentors

The people who shape tomorrow's doctors

For those who choose medicine and then go on to select an area of practice, the inspiration for those choices is often lost in a haze of current challenges and future objectives. Destiny calls, but from where is sometimes hard to say.

Julie Drier (right) with two of her mentors, Richard Kalish, M.D., and Maria Hordinsky, M.D.

Michael P. Moore

photographs by Tim Rummelhoff

Katherine Knudson and mentor John Moss.

Once into a medical career, physicians often become too preoccupied to think about how they made it through medical school—or why they went into medicine in the first place. "Years later you can't rekindle why; it was an occasion, or perhaps an appreciation for someone who did something for you or for somebody close to you," reflected David M. Brown, M.D., dean of the University of Minnesota Medical School. His thoughts were directed to an especially receptive audience: graduating medical students and the mentors they chose to honor at a reception held in February. It was a brief but unforgettable time-out for very busy people to celebrate and reflect on how young people are inspired by those who touch their lives.

"We're so busy during medical school and in other areas of our lives, that we never really get a chance to stop and thank the people who inspired us or helped us to get here," said Pablo J. Villablanca, a fourth-year medical student who helped organize the event. "This is that chance."

It was also a chance to remember 100 years of medical school history, as well as 50 years of the Minnesota Medical Foundation (MMF), which raises funds for research and teaching in the U of M medical schools in Minneapolis and Duluth and to help students financially. The university's medical school and MMF cosponsored the mentor reception as part of their anniversary celebrations, with contributions from 3M's Medical Products Group.

Another speaker at the reception, Nadine G. Smith, M.D., a dermatologist in private practice and president of the MMF Board of Directors, had no trouble recalling her mentor. The reception brought back memories of a party in 1950, when she was a second-year medical student at the University of Minnesota.

"It was kind of like a mentor reception, and Dr. Vernon D. E. Smith [no relation] attended it as my mentor. He was my family's physician, and he encouraged me to go to medical school. He followed my progress through medical school, and because of his urging, I became an MMF trustee 15 years ago. We remained good friends until his death" in July 1987.

As the immediate past president of the Medical School Alumni Association, Smith says the mentor reception was just what the doctor ordered. "It was a good way for MMF to show its support for the medical school and the university," she said. "It was great to see how the mentors reacted; they were just glowing and obviously so pleased to be recognized."

The 113 medical students who attended the reception named a wide range of mentors: parents, physicians (including Robert J. Meyer, M.D., who delivered medical student Tim Swan), teachers from the elementary to graduate school level, music and dance teachers, counselors and advisers, researchers, and theologians. Some of the students found it impossible to narrow their choice to one person. And most said they would have liked to have named five to ten additional people who, like their invited mentor(s), offered the inspiration and support they needed at crucial times in their education.

As they prepare to graduate, the students cited many reasons for going into medicine and for making educational and career choices along the way. The three whose stories follow offer a cross-section of the wide-ranging influences that lead to a medical destiny.

Classical Medicine

Inspiration can come from many sources, and they need not be specific to the ultimate goal. For example, Katherine Knudson came to the medical school via classical piano lessons. That's why she chose as her mentor her piano teacher, John Moss. "As a teen I hated piano practice, but John was so excited about teaching that it was like an infectious process," Knudson says.

Eventually, Moss had her memorizing classical works and performing them at recitals. "That's the mark of a good teacher, bringing you much further than you ever thought you could go," Knudson said. Before she chose medicine, she had aspirations of becoming a concert pianist.

Knudson doesn't think it was that great a step from music to medicine, because "there's an art to being a good physician," she says. Besides Moss, she credits her mother with giving her the self-confidence to be the best in whatever she chooses to do.

In medicine, Knudson has chosen to excel at obstetrics/gynecology. She says she is undaunted by the current malpractice crisis, "although it is scary to think that there's about a 70 percent chance you could end up in court. But I think you have to do what feels right and matches your talents and personality, and ob/gyn feels right for me.

"That's the mark of a good teacher, bringing you much further than you ever thought you could go."

"It's a very variety-filled specialty, with a nice balance between the more tense surgical problems and the happy occasions. I like it because you're working with relatively healthy patients and you can make a great deal of difference in their lives. I went into medicine because I wanted to do something socially responsible, and I think I can do that best in obstetrics and gynecology."

Science, For People's Sake

Julie Drier came to the University of Minnesota with a love for science and learning. "I chose medicine because I really did want to see a direct benefit of what I did. I like science, but I wanted to do something with an immediate human impact, and I wanted to contribute to society," Drier says.

Her first contact with the medical school was through Paul Quie, M.D., professor of pediatrics. She interviewed with him, and then after she was accepted, chose him as her adviser. More recently, she chose Quie again, as one of the three mentors she invited to the reception.

"I'm impressed with him as a whole person; he's interesting, caring, involved in teaching, patient care, and research, and in social issues as well. He is as close to the traditional image of a physician as I can imagine," Drier said.

Financial difficulties—the bane of many medical students—caught up with Drier during her second year of medical school. "My parents taught me I could do anything I want if I work hard enough and am patient. They thought they'd be able to help me financially, but they own a farm in western Wisconsin, and the time I entered medical school coincided with the downturn in farming. I was having to take out loans with really high interest rates in my second year, so I decided to take some time off and get my feet under me," Drier explained.

Drier was also feeling unsure of where she was going in medical school, so she went back to science. She was fortunate in being able to find positions that helped pay her way through medical school and provided experience in medical research. First, with help from an MMF grant, she did research in surgical pathology with Mark R. Wick, M.D., professor of laboratory medicine and pathology at the university. Drier then applied at 3M, seeking a job in which she would be involved in the industrial side of medical research. She worked at 3M Riker through 1987, helping drug development teams with various projects. "I did things like proofing data, and with one project I even wrote the final report to the FDA," Drier said.

With her scientific and financial foundations restored, Drier returned to the medical school in 1987. An interest in dermatology led her to become involved in research projects being conducted by assistant professors of dermatology Richard S. Kalish, M.D., and Maria K. Hordinsky, M.D. Again, a grant from MMF made it possible for Drier to gain research experience while receiving a stipend. One of her projects resulted in an abstract that will be presented at the annual meeting of the Society for Investigative Dermatology.

"Because of Julie's research experience in pathology and at 3M, we were able to involve her in research that was quite a bit more involved than what most medical students can do," says Hordinsky. "I really enjoy working with medical students, and I try to find research projects that match their interests and capabilities. I want their research experience to be memorable."

In fact, Drier's time with Hordinsky and Kalish was so memorable that she named them her mentors, and she plans to specialize in academic dermatology.

Hordinsky says she believes that Drier and the rest of the women who make up about 40 percent of current medical school enrollment are fortunate to have many more female role models in medicine than she did.

Drier agrees: "Being a woman in medicine is not so different in medical school, but it is more complicated, I think, in your personal life. It's harder for a woman to devote the time to a medical career when society says she should be raising a family. I was lucky to find two women [Hordinsky and Barbara Wilson, M.D., head of dermatology at the Minneapolis Veterans Administration Medical Center, with whom Drier did a clinical rotation] who are successful and happy in academic medicine as well as in raising their families. Seeing them do both so well gave me the confidence that I can do it, too."

"I like science, but I wanted to do something with an immediate human impact, and I wanted to contribute to society."

The Dance of Life

There has been no shortage of medical role models in Arthur Madsen's life. His father is a surgeon, his grandfather was an obstetrician/gynecologist, one uncle is a neurologist and another a neurosurgeon.

"I've always been fascinated by development, from when I was young and used to study my dad's anatomy books, especially fetal development," Madsen says.

Madsen followed his anatomical interests through an undergraduate biology degree and then into anatomy in graduate school in 1981. As an undergraduate, he was advised by Donald Robertson, Ph.D., who encouraged his interests and efforts, which included preparing a seminar on atrial septal defects.

But it was as an orderly at Ebeneezer Nursing Home in Minneapolis that he got a real taste for the rewards of clinical medicine. "Vera West, the head nurse there, taught a spirit of caring that was really inspiring. I remember coming home after work feeling just radiant from helping residents with physical and emotional needs. I knew that this was why I want to go into medicine," Madsen said.

Madsen entered the medical school in 1982. After completing the first two years, he decided to get back into the anatomy lab. There he was inspired by the teaching and research of two faculty members in the Department of Cell Biology and Neuroanatomy: David Hamilton, Ph.D., department head; and Robert Elde, Ph.D., Madsen's adviser. "They've been incredibly supportive," says Madsen, who plans to complete a master's degree this spring and to continue his research toward a Ph.D. He has also worked as a teaching assistant in gross anatomy. "I'd like to continue to teach in addition to pursuing research and clinical work," he says.

In 1987, Madsen "felt the need to get back into the clinic, to get the people exposure I was missing." The dementia problems he had seen in the elderly pointed him toward psychiatry, and he was

helped along that path by his medical school adviser, Leonard Heston, M.D., professor and director of adult psychiatry.

And then, while in a pediatric rotation at the Community University Health Care Center in Minneapolis, and while volunteering briefly at the Indian Health Board, Madsen found what he hopes will be his life's work. "I'd like to specialize in academic child psychiatry, and I hope to do it in a situation with cross-cultural opportunities. I'd like someday to become involved with the Indian Health Service," he said.

Madsen says that he would like to have named as his mentors all the people who helped him in anatomy and medical school. But there was one special teacher who has influenced him since 1978, when he first took one of her ballroom dance classes. Associate Professor Mary Lampe has been teaching dance in the College of Education since 1944. "Through her I realized what a unique form of recreation dance is—it's fun, it's good exercise, it facilitates social interaction, and it is a form of artistic expression. I chose Mrs. Lampe as my mentor because dance rejuvenates me, and I go back to my work with a new perspective."

"Dance helps break down social and professional barriers, and it sends you back to your work rejuvenated."

Throughout his education, Madsen has kept in touch with Lampe, helping out with some of her dance classes and as one of the 280 members of the University of Minnesota Ballroom Dance Club she started.

"Last year I wanted to exercise my own teaching skills, so I organized a ballroom dance class for medical students. I was really nervous at the first class, but I opened my mouth and Mrs. Lampe spoke out of it," Madsen said. "It's rewarding to use what I've learned from Mrs. Lampe about how to communicate movements, and to see people who are feeling trepidation about dance gain confidence and go on to have fun and develop their own style.

"I think dance is especially important in medicine, because everyone works so hard, but they often don't really know the people around them. It helps break down social and professional barriers, and it sends you back to your work rejuvenated."

Michael Moore is a writer for the Health Sciences Public Relations office at the University of Minnesota.

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Brief Summary

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Precautions: *General* — 1. Symptomatic response to nizatidine therapy does not preclude the presence of gastric malignancy.

2. Because nizatidine is excreted primarily by the kidney, dosage should be reduced in patients with moderate to severe renal insufficiency.

3. Pharmacokinetic studies in patients with hepatorenal syndrome have not been done. Part of the dose of nizatidine is metabolized in the liver. In patients with normal renal function and uncomplicated hepatic dysfunction, the disposition of nizatidine is similar to that in normal subjects.

Laboratory Tests — False-positive tests for urobilinogen with Multistix® may occur during therapy with nizatidine.

Drug Interactions — No interactions have been observed between Axid and theophylline, chlordiazepoxide, lorazepam, lidocaine, phenytoin, and warfarin. Axid does not inhibit the cytochrome P-450-linked drug-metabolizing enzyme system; therefore, drug interactions mediated by inhibition of hepatic metabolism are not expected to occur. In patients given very high doses (3,900 mg) of aspirin daily, increases in serum salicylate levels were seen when nizatidine, 150 mg b.i.d., was administered concurrently.

Carcinogenesis, Mutagenesis, Impairment of Fertility — A two-year oral carcinogenicity study in rats with doses as high as 500 mg/kg/day (about 80 times the recommended daily therapeutic dose) showed no evidence of a carcinogenic effect. There was a dose-related increase in the density of enterochromaffin-like (ECL) cells in the gastric oxyntic mucosa. In a two-year study in mice, there was no evidence of a carcinogenic effect in male mice; although hyperplastic nodules of the liver were increased in the high-dose males as compared with placebo. Female mice given the high dose of Axid (2,000 mg/kg/day, about 330 times the human dose) showed marginally statistically significant increases in hepatic carcinoma and hepatic nodular hyperplasia with no numerical increase seen in any of the other dose groups. The rate of hepatic carcinoma in the high-dose animals was within the historical control limits seen for the strain of mice used. The female mice were given a dose larger than the maximum tolerated dose, as indicated by excessive (30%) weight decrement as compared with concurrent controls and evidence of mild liver injury (transaminase elevations). The occurrence of a marginal finding at high dose only in animals given an excessive and somewhat hepatotoxic dose, with no evidence of a carcinogenic effect in rats, male mice, and female mice (given up to 360 mg/kg/day, about 60 times the human dose), and a negative mutagenicity battery are not considered evidence of a carcinogenic potential for Axid.

Axid was not mutagenic in a battery of tests performed to evaluate its potential genetic toxicity, including bacterial mutation tests, unscheduled DNA synthesis, sister chromatid exchange, mouse lymphoma assay, chromosome aberration tests, and a micronucleus test.

In a two-generation, perinatal and postnatal fertility study in rats, doses of nizatidine up to 650 mg/kg/day produced no adverse effects on the reproductive performance of parental animals or their progeny.

Pregnancy — Teratogenic Effects — Pregnancy Category C — Oral reproduction studies in rats at doses up to 300 times the human dose and in Dutch Belted rabbits at doses up to 55 times the human dose revealed no evidence of impaired fertility or teratogenic effect; but, at a dose equivalent to 300 times the human dose, treated rabbits had abortions, decreased number of live fetuses, and depressed fetal weights. On intravenous administration to pregnant New Zealand White rabbits, nizatidine at 20 mg/kg produced cardiac enlargement, coarctation of the aortic arch, and cutaneous edema in one fetus and at 50 mg/kg it produced ventricular anomaly, distended abdomen, spina bifida, hydrocephaly, and enlarged heart in one fetus. There are, however, no adequate and well-controlled studies in pregnant women. It is also not known whether nizatidine can cause fetal harm when administered to a pregnant woman or can affect reproduction capacity. Nizatidine should be used during pregnancy only if the potential benefit justifies the potential risk to the fetus.

Nursing Mothers — Studies conducted in lactating women have shown that <0.1% of the administered oral dose of nizatidine is secreted in human milk in proportion to plasma concentrations. Caution should be exercised when administering nizatidine to a nursing mother.

Pediatric Use — Safety and effectiveness in children have not been established.

Use in Elderly Patients — Ulcer healing rates in elderly patients are similar to those in younger age groups. The incidence rates of adverse events and laboratory test abnormalities are also similar to those seen in other age groups. Age alone may not be an important factor in the disposition of nizatidine. Elderly patients may have reduced renal function.

Adverse Reactions: Clinical trials of nizatidine included almost 5,000 patients given nizatidine in studies of varying durations. Domestic placebo-controlled trials included over 1,900 patients given nizatidine and over 1,300 given placebo. Among reported adverse events in the domestic placebo-controlled trials, sweating (1% vs 0.2%), urticaria (0.5% vs < 0.01%), and somnolence (2.4% vs 1.3%) were significantly more common in the nizatidine group. A variety of less common events was also reported; it was not possible to determine whether these were caused by nizatidine.

Hepatic — Hepatocellular injury, evidenced by elevated liver enzyme tests (SGOT [AST], SGPT [ALT], or alkaline phosphatase), occurred in some patients and was possibly or probably related to nizatidine. In some cases, there was marked elevation of SGOT, SGPT enzymes (greater than 500 IU/L) and, in a single instance, SGPT was greater than 2,000 IU/L. The overall rate of occurrences of elevated liver enzymes and elevations to three times the upper limit of normal, however, did not significantly differ from the rate of liver enzyme abnormalities in placebo-treated patients. All abnormalities were reversible after discontinuation of Axid.

Cardiovascular — In clinical pharmacology studies, short episodes of asymptomatic ventricular tachycardia occurred in two individuals administered Axid and in three untreated subjects.

CNS — Rare cases of reversible mental confusion have been reported.

Endocrine — Clinical pharmacology studies and controlled clinical trials showed no evidence of antiandrogenic activity due to Axid. Impotence and decreased libido were reported with equal frequency by patients who received Axid and by those given placebo. Rare reports of gynecomastia occurred.

Hematologic — Fatal thrombocytopenia was reported in a patient who was treated with Axid and another H_2-receptor antagonist. On previous occasions, this patient had experienced thrombocytopenia while taking other drugs. Rare cases of thrombocytopenic purpura have been reported.

Integumental — Sweating and urticaria were reported significantly more frequently in nizatidine- than in placebo-treated patients. Rash and exfoliative dermatitis were also reported.

Hypersensitivity — As with other H_2-receptor antagonists, rare cases of anaphylaxis following administration of nizatidine have been reported. Because cross-sensitivity in this class of compounds has been observed, H_2-receptor antagonists should not be administered to individuals with a history of previous hypersensitivity to these agents. Rare episodes of hypersensitivity reactions (eg, bronchospasm, laryngeal edema, rash, and eosinophilia) have been reported.

Other — Hyperuricemia unassociated with gout or nephrolithiasis was reported. Eosinophilia, fever, and nausea related to nizatidine administration have been reported.

Overdosage: Overdoses of Axid have been reported rarely. The following is provided to serve as a guide should such an overdose be encountered.

Signs and Symptoms — There is little clinical experience with overdosage of Axid in humans. Test animals that received large doses of nizatidine have exhibited cholinergic-type effects, including lacrimation, salivation, emesis, miosis, and diarrhea. Single oral doses of 800 mg/kg in dogs and of 1,200 mg/kg in monkeys were not lethal. Intravenous median lethal doses in the rat and mouse were 301 mg/kg and 232 mg/kg respectively.

Treatment — To obtain up-to-date information about the treatment of overdose, a good resource is your certified regional Poison Control Center. Telephone numbers of certified poison control centers are listed in the *Physicians' Desk Reference (PDR)*. In managing overdosage, consider the possibility of multiple drug overdoses, interaction among drugs, and unusual drug kinetics in your patient.

If overdosage occurs, use of activated charcoal, emesis, or lavage should be considered along with clinical monitoring and supportive therapy. Renal dialysis for four to six hours increased plasma clearance.

PV 2096 AMP [013089]

Additional information available to the profession on request.

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[1] Data on file, Lilly Research Laboratories.

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Nurse Practitioner
Medical Director
Research Nephrology
Community Nephrologist
Renal Dietitian
Medical Director
Home Dialysis
Registered Nurse
Renal Transplant Surgery
Program
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Supervisor
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Opportunity Knocks

UMD Opens Doors to Health Careers for Native Americans

Pat Miller

It was in Brazil that Antonio "Mike" Guimaraes first learned of the need for doctors in rural communities.

During the eight years his family lived there, Guimaraes would watch his physician father provide medical care in remote areas.

"There are parts of Brazil that are very isolated and places where a doctor comes to town only once a month—my father was one of those doctors," Guimaraes said. "I would go along and see this long line of people waiting in the hot sun just to see the doctor for a few minutes. I realized there was a need for better medical care."

Guimaraes, who is half Minnesota Chippewa, spent summers during his youth with his grandparents in Cass Lake, Minnesota, on the Leech Lake Indian Reservation. But it wasn't until he returned to Minnesota years later and became reacquainted with his mother's family on the reservation that Guimaraes was himself inspired to become a doctor.

"I realized that the reservation had the same need as those remote locations in Brazil," he said.

Today, Guimaraes is a second-year medical student at the University of Minnesota, Duluth (UMD) School of Medicine. After completing his medical education, he hopes to return to the reservation to practice.

Guimaraes is an outstanding example of the students served by a specialized set of programs at the school that are targeted to Native Americans who want to pursue careers in the health care professions.

American Indian communities have a critical need for Indian health professionals to upgrade the health care provided to them and improve their overall health. In 1970, only 18 American Indians were enrolled in medical colleges across the United States. Today, the number has grown considerably, although the representation of Native Americans in the medical field remains the lowest of any minority in the U.S.

To address the need for Native American health professionals, UMD established the Center of American Indian and Minority Health last year. It brings together under one administration already existing programs, including Indians into Research Careers (IRC), Native Americans into Medicine (NAM), American Indians into Marine Sciences (AIMS), and the Howard Rockefeller program for high school students.

"Through these programs, we seek to identify, recruit, retain, and support American Indian students seeking careers in the health care professions," said Ruth Myers, assistant director of the center.

"The center has three primary missions: research, education, and service," Myers said. Ongoing research on health problems of minority populations is conducted in order to improve the development, organization, and administration of health care in rural and reservation settings and to find better ways of working with traditional healers.

"We are unique in that we are involved with high school and undergraduate students, as well as professionals, and maintain very close working ties with members of the American Indian community," Myers said, adding that to her knowledge, no other medical school offers programs as comprehensive as those available at the university's Duluth campus.

After attending the College of St. Thomas for his first two years of college, Mike Guimaraes transferred to the University of Minnesota, Twin Cities, where he learned of Duluth's Indians into Research Careers program. He transferred to UMD when he was accepted to the program and received his undergraduate degree in biology.

IRC is a two-year program funded by Minority Access to Research Careers of the U.S. Department of Health and Human Services. Established in 1978, the program is designed for Indian students in their junior year who are working toward a bachelor's degree in a science field and are interested in biomedical research. IRC prepares students for biomedical research careers by providing financial support and research opportunities.

IRC students learn how to use laboratory equipment and scientific research methods and how to apply them to their area of medical research. Each student is part of a research team and is assigned to a faculty member involved in a research project.

For Guimaraes, the program was the turning point in deciding to attend medical school.

"Being in the IRC program was one of the best undergraduate experiences I had with regard to research medicine and discovering exactly what science is," he said. "The experience really bolstered my self-confidence and probably was one of the most important things that told me I really could handle science and go into medicine."

In addition to laboratory experience, Guimaraes emphasizes that the staff and other participants at the center helped him maintain contact with his Indian heritage.

"They are always in touch with the Indian community, and there were several times when people from the community would help us and provide support," he said.

Being able to share his experiences with other American Indians pursuing health careers and the proximity of role models were other benefits of the program, Guimaraes said.

He said he particularly appreciates what he learns from his participation in the School of Medicine's preceptorship program, which matches medical students to family practitioners throughout Minnesota. Students spend three, three-day sessions each year following their preceptor's every move and learning what the life of a family doctor in a rural community is like.

Guimaraes' preceptor is Kathy Annette, M.D., Minnesota's first female Ojibwa physician, who practices at the Indian Health Service hospital in Cass Lake.

"She has had a big influence on me," Guimaraes said.

Like Guimaraes, Annette also participated in one of the center's programs—Native Americans into Medicine—prior to attaining her M.D. NAM, like the School of Medicine itself, was started to help fill the need for family practice physicians in rural and non-urban areas, and it has proved successful in its mission.

The program is funded by the Health Careers Opportunity program of Health and Human Services and was established in 1973 to acquaint Native American high school seniors, college students, and postbaccalaureate students with a sampling of medical career course offerings. The program has served 384 students, many of whom have entered health professions.

The year-long NAM program is available to students through

Medical student Mike Guimaraes credits UMD's Indians into Research Careers program with giving him the confidence to choose a career in medicine.

Ruth Myers, assistant director of UMD's Center of American Indian and Minority Health.

UMD's School of Medicine and Bemidji State University (BSU). It is designed to identify and provide support to promising disadvantaged students interested in careers in medicine, optometry, dentistry, veterinary medicine, osteopathy, pharmacy, psychiatry, public health, and health care administration.

Under NAM, students attend a six-week summer mini-medical program at UMD as well as an academic-year program at UMD and BSU. Students in the program study anatomy, physiology, immunology, physical diagnosis, and CPR. They become acquainted with medical terminology and library use and take field trips to hospitals at area Indian reservations.

Laboratory work in many of the health sciences fields is an integral part of the curriculum. And by the time students complete the course, most know whether or not a medical career is for them.

Programs such as NAM are particularly beneficial because Indian students often are seen as problem students; they may view things differently or solve problems differently. For some, English might not be a primary language.

NAM and the center's other programs seek to rectify these misconceptions and problems by assisting students not only academically, but with everything from filling out paperwork and understanding the bureaucracy to learning the academic system.

"These programs have opened the door for Indian students interested in careers in the health sciences, which society as a whole has not encouraged before," Myers said.

Like the IRC and NAM programs, American Indians into Marine Sciences (AIMS) and the Howard Rockefeller Program offer Native American students an opportunity to explore science careers they might not have considered possible for themselves.

AIMS is a three-year undergraduate program to encourage American Indian students to pursue careers in aquatic science research.

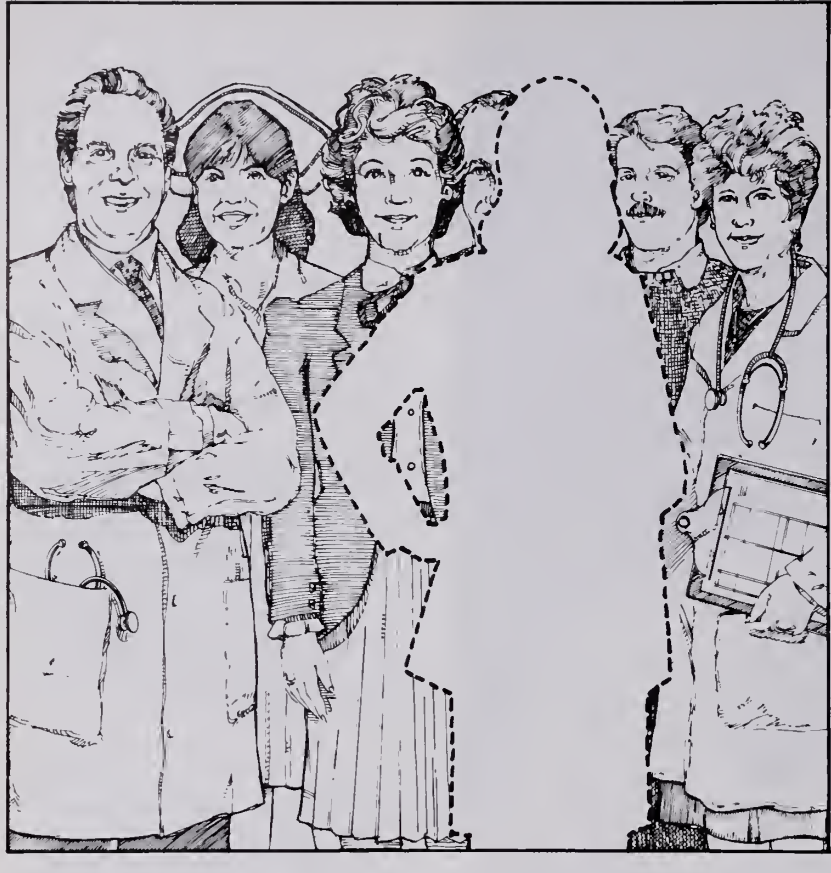
> **"These programs have opened the door for Indian students interested in careers in the health sciences, which society as a whole has not encouraged before."**

The program is funded by Minnesota Sea Grant and receives support from the U.S. Department of Commerce through the National Oceanic and Atmospheric Administration.

The Howard Rockefeller program, which has served 87 students since 1979, is an eight-week summer program for American Indian high school students on the UMD campus. Funded by a grant from the Rockefeller Foundation to Howard University, the program exposes participants to biomedical research and offers them hands-on experience in a laboratory setting with research faculty. Students attend lectures and write and present a research paper while in the program.

The success of these programs also is evident in the class make-up of the School of Medicine. Each year, the school has one to three Indian students out of a total enrollment of 48 students—one of the highest percentages of American Indians in any medical school in the country.

Pat Miller is a senior information representative at the University of Minnesota, Duluth.



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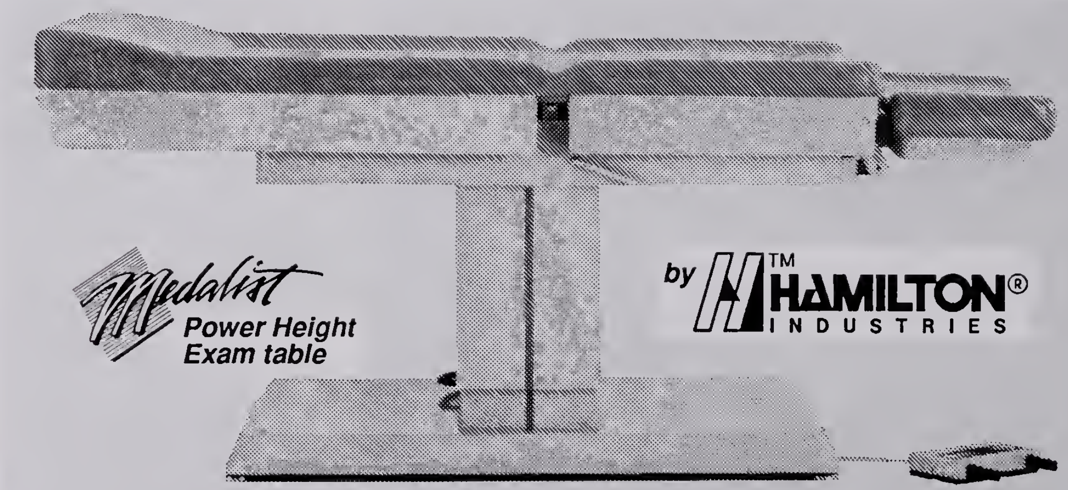

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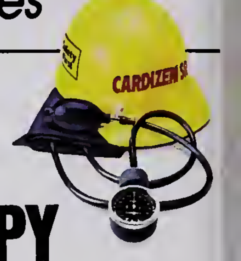

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BRIEF SUMMARY
CARDIZEM® SR
(diltiazem hydrochloride)
Sustained Release Capsules

CONTRAINDICATIONS

CARDIZEM is contraindicated in (1) patients with sick sinus syndrome except in the presence of a functioning ventricular pacemaker, (2) patients with second- or third-degree AV block except in the presence of a functioning ventricular pacemaker, (3) patients with hypotension (less than 90 mm Hg systolic), (4) patients who have demonstrated hypersensitivity to the drug, and (5) patients with acute myocardial infarction and pulmonary congestion documented by x-ray on admission.

WARNINGS

1. **Cardiac Conduction**. CARDIZEM prolongs AV node refractory periods without significantly prolonging sinus node recovery time, except in patients with sick sinus syndrome. This effect may rarely result in abnormally slow heart rates (particularly in patients with sick sinus syndrome) or second- or third-degree AV block (nine of 2,111 patients or 0.43%). Concomitant use of diltiazem with beta-blockers or digitalis may result in additive effects on cardiac conduction. A patient with Prinzmetal's angina developed periods of asystole (2 to 5 seconds) after a single dose of 60 mg of diltiazem.
2. **Congestive Heart Failure**. Although diltiazem has a negative inotropic effect in isolated animal tissue preparations, hemodynamic studies in humans with normal ventricular function have not shown a reduction in cardiac index nor consistent negative effects on contractility (dp/dt). An acute study of oral diltiazem in patients with impaired ventricular function (ejection fraction 24% ± 6%) showed improvement in indices of ventricular function without significant decrease in contractile function (dp/dt). Experience with the use of CARDIZEM (diltiazem hydrochloride) in combination with beta-blockers in patients with impaired ventricular function is limited. Caution should be exercised when using this combination.
3. **Hypotension**. Decreases in blood pressure associated with CARDIZEM therapy may occasionally result in symptomatic hypotension.
4. **Acute Hepatic Injury**. Mild elevations of transaminases with and without concomitant elevation in alkaline phosphatase and bilirubin have been observed in clinical studies. Such elevations were usually transient and frequently resolved even with continued diltiazem treatment. In rare instances, significant elevations in enzymes such as alkaline phosphatase, LDH, SGOT, SGPT, and other phenomena consistent with acute hepatic injury have been noted. These reactions tended to occur early after therapy initiation (1 to 8 weeks) and have been reversible upon discontinuation of drug therapy. The relationship to CARDIZEM is uncertain in some cases, but probable in some (See PRECAUTIONS.)

PRECAUTIONS

General. CARDIZEM (diltiazem hydrochloride) is extensively metabolized by the liver and excreted by the kidneys and in bile. As with any drug given over prolonged periods, laboratory parameters should be monitored at regular intervals. The drug should be used with caution in patients with impaired renal or hepatic function. In subacute and chronic dog and rat studies designed to produce toxicity, high doses of diltiazem were associated with hepatic damage. In special subacute hepatic studies, oral doses of 125 mg/kg and higher in rats were associated with histological changes in the liver which were reversible when the drug was discontinued In dogs, doses of 20 mg/kg were also associated with hepatic changes; however, these changes were reversible with continued dosing

Dermatological events (see ADVERSE REACTIONS section) may be transient and may disappear despite continued use of CARDIZEM However, skin eruptions progressing to erythema multiforme and/or exfoliative dermatitis have also been infrequently reported. Should a dermatologic reaction persist, the drug should be discontinued.

Drug Interaction. Due to the potential for additive effects, caution and careful titration are warranted in patients receiving CARDIZEM concomitantly with any agents known to affect cardiac contractility and/or conduction. (See WARNINGS.) Pharmacologic studies indicate that there may be additive effects in prolonging AV conduction when using beta-blockers or digitalis concomitantly with CARDIZEM (See WARNINGS.)

As with all drugs, care should be exercised when treating patients with multiple medications. CARDIZEM undergoes biotransformation by cytochrome P-450 mixed function oxidase Coadministration of CARDIZEM with other agents which follow the same route of biotransformation may result in the competitive inhibition of metabolism. Dosages of similarly metabolized drugs, particularly those of low therapeutic ratio or in patients with renal and/or hepatic impairment, may require adjustment when starting or stopping concomitantly administered CARDIZEM to maintain optimum therapeutic blood levels.

Beta-blockers: Controlled and uncontrolled domestic studies suggest that concomitant use of CARDIZEM and beta-blockers or digitalis is usually well tolerated, but available data are not sufficient to predict the effects of concomitant treatment in patients with left ventricular dysfunction or cardiac conduction abnormalities.

Administration of CARDIZEM (diltiazem hydrochloride) concomitantly with propranolol in five normal volunteers resulted in increased propranolol levels in all subjects and bioavailability of propranolol was increased approximately 50%. If combination therapy is initiated or withdrawn in conjunction with propranolol, an adjustment in the propranolol dose may be warranted (See WARNINGS.)

Cimetidine: A study in six healthy volunteers has shown a significant increase in peak diltiazem plasma levels (58%) and area-under-the-curve (53%) after a 1-week course of cimetidine at 1,200 mg per day and diltiazem 60 mg per day Ranitidine produced smaller, nonsignificant increases. The effect may be mediated by cimetidine's known inhibition of hepatic cytochrome P-450, the enzyme system probably responsible for the first-pass metabolism of diltiazem. Patients currently receiving diltiazem therapy should be carefully monitored for a change in pharmacological effect when initiating and discontinuing therapy with cimetidine An adjustment in the diltiazem dose may be warranted.

Digitalis: Administration of CARDIZEM with digoxin in 24 healthy male subjects increased plasma digoxin concentrations approximately 20%. Another investigator found no increase in digoxin levels in 12 patients with coronary artery disease. Since there have been conflicting results regarding the effect of digoxin levels, it is recommended that digoxin levels be monitored when initiating, adjusting, and discontinuing CARDIZEM therapy to avoid possible over- or under-digitalization. (See WARNINGS.)

Anesthetics: The depression of cardiac contractility, conductivity, and automaticity as well as the vascular dilation associated with anesthetics may be potentiated by calcium channel blockers. When used concomitantly, anesthetics and calcium blockers should be titrated carefully.

Carcinogenesis, Mutagenesis, Impairment of Fertility. A 24-month study in rats and a 21-month study in mice showed no evidence of carcinogenicity. There was also no mutagenic response in in vitro bacterial tests. No intrinsic effect on fertility was observed in rats.

Pregnancy. Category C. Reproduction studies have been conducted in mice, rats, and rabbits. Administration of doses ranging from five to ten times greater (on a mg/kg basis) than the daily recommended therapeutic dose has resulted in embryo and fetal lethality. These doses, in some studies, have been reported to cause skeletal abnormalities. In the perinatal/postnatal studies, there was some reduction in early individual pup weights and survival rates. There was an increased incidence of stillbirths at doses of 20 times the human dose or greater.

There are no well-controlled studies in pregnant women; therefore, use CARDIZEM in pregnant women only if the potential benefit justifies the potential risk to the fetus

Nursing Mothers. Diltiazem is excreted in human milk. One report suggests that concentrations in breast milk may approximate serum levels. If use of CARDIZEM is deemed essential, an alternative method of infant feeding should be instituted.

Pediatric Use. Safety and effectiveness in children have not been established

ADVERSE REACTIONS

Serious adverse reactions have been rare in studies carried out to date, but it should be recognized that patients with impaired ventricular function and cardiac conduction abnormalities have usually been excluded from these studies.

The adverse events described below represent events observed in clinical studies of hypertensive patients receiving either CARDIZEM Tablets or CARDIZEM SR Capsules as well as experiences observed in studies of angina and during marketing. The most common events in hypertension studies are shown in a table with rates in placebo patients shown for comparison. Less common events are listed by body system, these include any adverse reactions seen in angina studies that were not observed in hypertension studies. In all hypertensive patients studied (over 900), the most common adverse events were edema (9%), headache (8%), dizziness (6%), asthenia (5%), sinus bradycardia (3%), flushing (3%), and 1° AV block (3%). Only edema and perhaps bradycardia and dizziness were dose related. The most common events observed in clinical studies (over 2,100 patients) of angina patients and hypertensive patients receiving CARDIZEM Tablets or CARDIZEM SR Capsules were (ie, greater than 1%) edema (5.4%), headache (4.5%), dizziness (3.4%), asthenia (2.8%), first-degree AV block (1.8%), flushing (1.7%), nausea (1.6%), bradycardia (1.5%), and rash (1.5%).

DOUBLE BLIND PLACEBO CONTROLLED HYPERTENSION TRIALS

Adverse	Diltiazem N=315 # pts (%)	Placebo N=211 # pts (%)
headache	38 (12%)	17 (8%)
AV block first degree	24 (7.6%)	4 (1.9%)
dizziness	22 (7%)	6 (2.8%)
edema	19 (6%)	2 (0.9%)
bradycardia	19 (6%)	3 (1.4%)
ECG abnormality	13 (4.1%)	3 (1.4%)
asthenia	10 (3.2%)	1 (0.5%)
constipation	5 (1.6%)	2 (0.9%)
dyspepsia	4 (1.3%)	1 (0.5%)
nausea	4 (1.3%)	2 (0.9%)
palpitations	4 (1.3%)	2 (0.9%)
polyuria	4 (1.3%)	2 (0.9%)
somnolence	4 (1.3%)	—
alk phos increase	3 (1%)	1 (0.5%)
hypotension	3 (1%)	1 (0.5%)
insomnia	3 (1%)	1 (0.5%)
rash	3 (1%)	1 (0.5%)
AV block second degree	2 (0.6%)	—

In addition, the following events were reported infrequently (less than 1° have been observed in angina trials. In many cases, the relation to dru uncertain.

Cardiovascular:	Angina, arrhythmia, bundle branch block, tachycardia, tricular extrasystoles, congestive heart failure, syncope.
Nervous System:	Amnesia, depression, gait abnormality, hallucinations, vousness, paresthesia, personality change, tinnitus, tre abnormal dreams.
Gastrointestinal:	Anorexia, diarrhea, dysgeusia, mild elevations of SGOT, and LDH (see hepatic warnings), vomiting, weight incre thirst.
Dermatological:	Petechiae, pruritus, photosensitivity, urticaria
Other:	Amblyopia, CPK increase, dyspnea, epistaxis, eye irrita hyperglycemia, sexual difficulties, nasal congestion, noct osteoarticular pain, impotence, dry mouth.

The following postmarketing events have been reported infrequently in tients receiving CARDIZEM. alopecia, gingival hyperplasia, erythema multifo and leukopenia. Definitive cause and effect relationship between these ev and CARDIZEM therapy cannot yet be established.

Issued

References: 1. Staessen J, Fagard R, Lignen P, et al: *Pr Cardiol* 1986;12(5):55-65. **2.** Massie B, MacCarthy Ramanathan KB, et al: *Ann Intern Med* 1987;107(2):1 157. **3.** Weir MR, Josselson J, Giard MJ, et al: *Am J Card* 1987;60:36I-41I. **4.** Frishman WH, Zawada ET Jr, Smith et al: *Am J Cardiol* 1987;59:615-623. **5.** Pool PE, Seag SC, Salel AF: *Am J Cardiol* 1985;56:86H-91H. **6.** Pool Seagren SC, Salel AF: *Cardiol Board Rev* 1986;3(10): 91. **7.** Sunderrajan S, Reams G, Bauer JH: *Hypertens* 1986;8:238-242. **8.** Amodeo C, Kobrin I, Ventura HO, e *Circulation* 1986;73(1):108-113. **9.** Schulte K-L, Mey Sabellek WA, Haertenberger A, et al: *Hypertensi* 1986;8:859-865.

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Working with the PRO

Foundation for Health Care Evaluation

Peer review organizations (PROs) have been accused of "hindsight medicine." They've been called the Monday-morning quarterbacks" of the medical world. But, at some time or another, many physicians will become involved in the peer review process. So it's important to understand that process—what a PRO does, how to respond if you receive a letter of inquiry, how to avoid difficulties with the PRO. The following report by the Foundation for Health Care Evaluation's Medical Standards and Practice Committee gives up-to-date information on Minnesota's PRO. In addition to describing the major responsibilities and activities of PROs, the report includes guidelines to help physicians respond during various stages of the peer review process.

Major PRO Responsibilities and Activities

The Foundation for Health Care Evaluation is Minnesota's peer review organization (PRO), one of 54 nationally that contract with the Health Care Financing Administration to do utilization and quality assurance review of the care and services rendered to Medicare beneficiaries.

Medicare patients are entitled to receive necessary inpatient services in acute care hospitals as well as skilled nursing services in swing beds, skilled nursing facilities, and home health agencies. Medicare does not pay for custodial care in any setting.

Hospitals are entitled to receive payment for services rendered under the prospective payment system, the core of which are Diagnosis Related Groups (DRGs). Each of the approximately 477 DRGs takes into consideration the patient's principal diagnosis, up to four complications or secondary diagnoses, the principal procedure (therapeutic or diagnostic), and the patient's age and discharge status. The payment per DRG is based on the average cost and length of stay for that DRG. Specialty facilities and units such as pediatrics, rehabilitation, and psychiatry can be exempted from the prospective payment system.

Legal Requirements

Physicians treating Medicare patients are required by the Social Security act to assure that services or items ordered or provided will be rendered economically, rendered only to the extent medically necessary, and of a quality that meets professionally recognized standards of health care. Documentation of medical necessity is required.

HCFA Requirements

The Foundation for Health Care Evaluation's (FHCE's) contract with the Health Care Financing Administration (HCFA) and Medicare law place two requirements on physicians in addition to those required by hospital medical staffs, standards of medical practice, and medical ethics. They require physicians to:

- obtain preadmission review before admitting a patient for specified conditions or procedures, and
- attest to the accuracy of the principal diagnosis, and other diagnoses and procedures, and annually sign an acknowledgment of having read the "penalty for perjury" statement.

Medical Standards

Standards of medical care and standards of documentation are established by the medical community, not by the review organization. The standard is applied by peers. This is the same standard applied in professional liability cases and by the Minnesota Board of Medical Examiners. Attending physicians should look to their peer review groups (hospital medical staff committees, county medical societies, and specialty societies) for evaluation of medical necessity and appropriateness of medical care.

A physician's primary responsibility is to his or her patient regardless of type of practice, practice setting, medical care coverage, or method of payment. Physicians are obliged to challenge review organizations' decisions that have the potential of denying patients necessary services or nonpayment for such services. An entry in a patient's chart that, in effect, says the patient was discharged because allowable days have run out implies poor quality and could result in medical legal liability.

Criteria

Criteria sets are screens applied by medical review coordinators (MRCs). Screens define the parameters that allow for approval or referral of a case by an MRC. Except in those instances where Medicare coverage guidelines apply, physician advisers make medical-necessity decisions based on their medical judgment and expertise. PRO criteria sets are not standards of care.

Preadmission Review

HCFA requires that the PRO conduct preadmission and/or preprocedure review on a select list of procedures. Preadmission/preprocedure review is required for elective procedures only. If obtaining preadmission review places the patient at risk, the procedure is not considered elective, and review is not necessary at that time. These cases will be reviewed on a retrospective, prepayment basis.

Lack of medical necessity is the only basis for denial of an admission or procedure. FHCE does not try to prove that a procedure was "elective" unless it is concerned that there appears to be a pattern of bypassing the preadmission review process.

FHCE will not authorize a specific number of days when certifying an admission or procedure. Once an admission is certified, Medicare will pay the DRG reimbursement for the admission or procedure whether the patient is admitted the night before surgery or after surgery. FHCE states that "same-day surgery" and "length of stay" are hospital problems that should be resolved through the local utilization review process.

FHCE defines an "elective" service as one that can be delayed without substantial risk to the health of the patient. It defines a "nonelective medical condition" as a condition that, if not treated immediately, is likely to result in death, permanent disability, prolonged temporary disability, unwarranted prolongation of treatment, increased risk of treatment by need of more complex or hazardous treatment, development of chronic illness, or inordinate physical or psychological suffering of the patient.

Required Review Activities

Seven review activities are required for every case subjected to retrospective PRO review (exception: DRG validation is not required for exempt units or hospitals):

1. Admission necessity and appropriateness;
2. Application of HCFA generic quality screens: identification of potential quality problems;
3. Coverage review: identification of non-covered items or services that were the basis for admission, affected the DRG assignment, or contributed to outlier days or costs;
4. DRG validation: determination as to whether information provided by the hospital to the fiscal intermediary matched the attending physician's description and information contained in the medical record;
5. Invasive procedure review: determination as to whether all invasive procedures affecting DRG assignment were medically necessary and appropriate;
6. Discharge review: determination as to whether the patient was medically stable at the time of discharge;
7. Waiver determination: determination as to whether the patient and/or provider should be held liable for retrospective denial of payment because they knew, or could reasonably have been expected to know, that such care was not covered.

FHCE Quality Review

When FHCE is performing retrospective review, medical review coordinators use the Health Care Financing Administration generic quality screens and their own clinical judgment to identify possible quality of care problems. When a potential quality problem is identified, medical records are reviewed by FHCE physician advisers. These carefully selected volunteer peer reviewers are full-time Minnesota physicians from practice and specialty settings similar to those of the physician being reviewed.

When the FHCE physician adviser, based on his or her clinical judgment, believes that a quality problem exists, the case is referred to a specialty physician or a committee of physicians for validation and confirmation of the problem.

If a quality problem is tentatively confirmed through this process, a notification letter is sent to the physician, giving him or her an opportunity to respond in writing or in person and to provide additional information that is not contained in the record. After receipt of additional information, a committee of physicians makes a final determination as to whether a quality problem exists. If a problem is confirmed, and a corrective action plan is developed and accepted by the physician, no formal sanctions are initiated.

Where severe problems are confirmed or where a corrective action plan fails, intensified profiling and monitoring by FHCE or a more stringent corrective action plan may be used. At this point, a formal sanction is initiated. However, there is still ample opportunity to avoid sanction by HCFA. Although the Board of Medical Examiners must be advised of HCFA action at this point, peer review deliberations and records remain confidential.

If the quality problem cannot be resolved through a corrective action plan, FHCE must recommend formal sanctioning to the Office of Inspector General of the Department of Health and Human Services. These sanctions can be in the form of a fine or exclusion from the Medicare program. Either action results in public notice of sanction. No action by FHCE, and no part of the process that takes place at FHCE is ever made public.

Recommendations

Physicians receiving letters of inquiry from FHCE should carefully consider their response to the inquiry. The physician should contact FHCE if he or she requires additional or clarifying information. Failure to respond within required time frames could trigger more serious action.

A physician who receives a letter of inquiry about a potential quality problem may elect to provide additional information in person to a committee of physicians, or in writing, for committee review.

If it appears that FHCE's interpretation of the medical facts is wrong, the physician can present documentation and expert testimony to support the physician's handing of the case(s).

If the FHCE interpretation appears to be correct, a plan to rectify the problem should be developed in cooperation with the physician's chief of staff or department head and presented to FHCE.

Poor documentation in patient charts is most often the reason for identification of potential quality problems. Carpathian Healthcare Consultants has prepared the following guidelines to assist physicians in avoiding problems in the peer review process.

1. On admission, the physician should:

- ► Include in the history:
  - • the reason(s), including geographic or psychosocial factors, for admitting the patient now rather than using outpatient observation or home care,
  - • discussion of how outpatient therapy failed,
  - • reasons why problems were not resolved during previous, recent admissions for the same diagnosis.
- ► Include in the physical:
  - • vital signs,
  - • assessment of distress and acuteness and severity of illness,
  - • description of patient's frailty, dependency, or dementia.
- ► Describe in general terms the plan for this admission, discussing reasons for any limited treatment plan.

2. In progress notes, the physician should:

- • Account for any unexpected laboratory and X-ray findings and untoward events or contradictory allied health observations.
- • Explain thinking behind major changes in diagnostic efforts and therapy.

3. At discharge, the physician should:

- ► Designate primary diagnosis that explains admission and other diagnoses that required action, giving rationale.
- ► Discuss abnormal laboratory, X-ray, and nursing observations.
- ► Note tests not reported at time of summary.
- ► In the disposition section, the physician should describe:
  - • support and caregiver arrangements,
  - • level of functioning,
  - • special problems: AMA discharge, poor cooperation, unstable condition,
  - • details of diet, medication, activity, and education efforts,
  - • follow-up visit plan.

Retrospective Denials

FHCE reviews a sampling of hospital medical records. Medical records of questionable admissions are referred to a FHCE physician adviser. The records are requested from the hospital. The hospital is given 30 days to copy and send the record to FHCE. Failure to submit the copied record after two requests within the 30-day time frame results in a temporary loss of payment to the hospital. Upon receipt of the record, FHCE will review the record and authorize payment depending upon the review results.

When a FHCE physician adviser reviews a record and feels the admission is not medically necessary, a proposed denial notice is sent to the hospital and attending physician. The notice will include guidelines under which the attending physician may discuss the case with a FHCE physician adviser. The time frame for the discussion is 20 days. FHCE support staff will help make the necessary arrangements to accommodate such discussion. ■

Steps to Take if You Disagree with FHCE's Utilization Decisions

Step 1. Review the medical record involved in the proposed denial. Identify and clarify the relevant facts of the case.

Step 2. Ask your utilization committee for an opinion about the case and for support.

Step 3. Discuss a potential denial with a FHCE physician adviser. FHCE must allow for discussion of a case before denying an admission. You have the right to request further discussion with a specialist in your field.

Step 4. If the case is denied, you may file a request with FHCE for reconsideration. This is the only opportunity you and your hospital will have to appeal an FHCE medical-necessity decision. Present your full case in writing, including peer review support.

Step 5. Help your patient file an appeal with the responsible agency. Medicare appeals by patients can be filed with FHCE, any Social Security district office, or any Office of Hearings and Appeals.

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LAWRENCE M. POSTON, M.D.

Ensuring High-Quality Care–At Home

The percentage of our population over 65 years old is growing. The average life expectancy of Americans is now approaching 80 years of age as medical technology is increasingly able to prolong life. Meanwhile, the cost of hospital and nursing home medical care is escalating. As a result of these factors, the cost of medical care of the elderly requires an ever-greater proportion of our total financial resources.

The delivery of medical care in patients' homes can help control these health care costs. The 1987 Minnesota Legislature enacted a law, that, among other things, provides for the licensure and regulation of home health care and hospice care in this state. Commissioner of Health Sister Mary Madonna Ashton convened a task force in July 1988 to recommend rules and regulations that will facilitate implementation of the law. I am a member of that Home Health Care Task Force and would like to share some of our recommendations.

The 1987 statute, Chapter 378 (Minnesota Statutes sections 144A.43 to 144A.49), is an attempt by the Department of Health and our state legislature to ensure that health care delivered in the home setting is appropriate, safe, and of high quality.

The task force recommends that licensure of home care be issued in these six categories:

A. comprehensive home care agencies, which provide the services of home health aides, homemakers, and home-maintenance workers, as well as professional services listed under class D below;

B. paraprofessional agencies, which provide only homemaker and home-maintenance services;

C. individual paraprofessionals, persons licensed as individuals, not as agencies, who provide any of the three types of service listed under class A above;

D. professional service providers for occupational therapy, speech therapy, physical therapy, nutritional services, and medical social services;

E. medical equipment vendors, which provide home care service in connection with the sale of durable medical equipment; and

F. hospice programs.

The task force recommends that professionals providing in-home care be licensed by appropriate existing statutes in the case of physicians, nurses, and social workers or that they be certified or registered by the appropriate credentialing authority in the case of occupational therapists, physical therapists, speech therapists, respiratory therapists, and nutritional therapists.

The task force further recommends specific training programs for paraprofessionals in the positions of home health aide, homemaker, and home-maintenance worker. Such education and training would be provided in our area technical institutes or by instructors certified by them. Specific curricula already exist for the training of such in-home personnel.

The task force made other recommendations regarding orientation of in-home health care workers and for ongoing supervision of their performance, administrative functions of agencies and individuals providing home care, and standards for record-keeping, care plan development, and periodic review and updating of in-home care to reflect changing patient needs.

Of course, all these activities will require physician involvement in establishing a care plan, ordering medical service and treatment, and providing ongoing review and supervision of the care.

The task force, agreeing that hospice care requires more skill, understanding, and care plan development, recommended that hospice licensure be considered under a separate category.

This work by the Department of Health, the Legislature, and the Home Health Care Task Force will help assure our citizens that home medical service will meet acceptable standards of quality and offer a good alternative to institutional care in many cases.

Final Note

This is my final President's Letter to you. I have appreciated the opportunity to serve the Minnesota Medical Association as your president. I have learned a great deal. I have become better acquainted with many of you. I hope I have contributed something to the advancement of the goals of medicine in our state and in our country. I look forward to continuing my participation in organized medicine. Thank you for the friendship, the help, and the recognition you have given me. ■

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Medical Ethos from page 273

paying surgeons $5,000 a month to seek hospital privileges at their facility and to do surgery on their turf. And medical advertising is omnipresent as physicians, clinics, hospitals, and health care groups attempt to increase their market share. Medical entrepreneurialism has allowed the moneychangers into the temple!

Clearly, the delivery of health care is rapidly changing. No one can predict its shape in the twenty-first century, but worrisome issues like entrepreneurial conflicts of interest can, and should, be addressed today. Money can legitimately be made on the stock market, real estate, gold coins, antiques, or at Las Vegas, but not in a conflict of interest that sullies the historic norms of your profession.

Walter Benjamin, who describes himself as a "friendly critic of the medical profession," is a professor of applied ethics at Hamline University in St. Paul, Minnesota.

Editor's Notebook from page 257

made up of independent and professional scholars, is a "bottom-up" egalitarian culture. Its actions are a culmination of collegial, consultative, and consensual interchanges. A university community, the logic continues, is, above all, a horizontal organization with multiple centers of power and control that moves at its own glacial speed.

This description of the university medical culture may be true, but the critics say: "So what? Declaring yourself a community of well-intentioned scholars doesn't offer any solutions to advance the university's cause in a competitive world." In any case, the "U" must make compromises to exist in the real world. It must foster relationships with its referral sources; it must bring in physicians from the outside who understand how the "real world" works; it must increase its productivity so it can compete for contracts in the managed care world; it must reorganize its faculty so it understands and can act upon the new realities; it must build its centers of excellence so they will attract and be of value to referring physicians; and it must strike the appropriate compromises between its services and its research missions.

The "U" has clearly accomplished some of these things: 1) in 1984 it organized its faculty into UMCA (the University of Minnesota Clinical Associates); 2) it has refined and systemized its "outreach" program; 3) it has signed contracts with all major Twin Cities HMOs, and it has obtained or is negotiating contracts with such national organizations as Prudential, National Group Health, Cigna, Equicor, and Lincoln National Life.

But the inherent complexities, the multiple power bases, and the webs of tension between the inner and outer worlds remain. In the end, the bottom line is that there is only one "U" . . . and a whole lot more. ■

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LOWER FEES FOR MEDICARE PATIENTS

The MMA announced in March that most of Minnesota's 180,000 to 200,000 low-income Medicare patients are eligible to receive lower-cost health care. About 80 percent of the state's practicing physicians have signed up for the newly created Physicians Serving Seniors Program, which will offer reduced fees through one of three programs: Senior Partners Care, Voluntary Assignment Program, and Medicare Assistance Program.

Only patients covered by both Medicare Part A (hospital bills) and Part B (physician bills and other costs) and who meet certain income standards are eligible for the reduced-fee programs.

CLINICAL GUIDELINES & COMPARISONS

Several of Minnesota's leading health care organizations are combining forces to develop a set of clinical guidelines that for the first time will help Minnesota physicians compare their performance to those of their colleagues.

The Healthcare Education and Research Foundation, a Twin Cities-based health care provider research organization, is coordinating the three-year, $1.3 million project. Collaborating are the Council of Hospital Corporations, the Hennepin County Medical Society, the Minnesota Hospital Association, the Ramsey County Medical Society, and the MMA.

Called the Minnesota Clinical Comparison and Assessment Project, the effort is focusing on two key elements: developing clinical guidelines for 20 to 25 high-volume, high-risk medical conditions and procedures; and collecting clinical and charge data from all Twin Cities hospitals and selected rural facilities, and feeding back that information to physicians and hospitals.

CYSTIC FIBROSIS DIAGNOSIS

Cystic fibrosis can be diagnosed more accurately if chromosome analysis accompanies standard tests, according to University of Minnesota researchers.

To date, cystic fibrosis (CF) diagnoses have been made on the basis of tests that measure chloride levels in sweat. DNA analysis now makes it possible to confirm a CF diagnosis even when sweat chloride tests are inconclusive.

The research team, led by Harry Orr, associate professor of laboratory medicine and pathology and a member of the university's Institute of Human Genetics faculty, examined human DNA using DNA markers closely linked to the gene responsible for CF, which is carried on human chromosome 7. The test enabled researchers to find the gene if it was present, and to then make a positive or negative diagnosis of CF.

CHEMICALLY DEPENDENT AND HEARING IMPAIRED YOUTH

The nation's first inpatient treatment program for hearing impaired chemically dependent youths opened March 14 at Riverside Medical Center in Minneapolis.

The Minnesota Chemical Dependency Program for Hearing Impaired Youth is an offshoot of the medical center's Fairview Deaconess Center, a treatment program for chemically dependent adolescents that draws patients from throughout the United States and Canada.

The program will have a capacity of 20 patients ages 12 to 21 and a staff fluent in sign language. Treatment will last an average of 40 days and will include three phases: evaluation, inpatient treatment, and transition back into the community.

CHICKEN POX RESEARCH

University of Minnesota's Henry Balfour, M.D., professor of pediatrics, is heading a national research study to determine if acyclovir—commonly used to treat genital herpes—can hasten recovery in children with chicken pox. One thousand patients in 10 cities across the nation—including about 100 in the Twin Cities area—will be tested. Half will receive acyclovir, which has helped speed recovery in patients with shingles, and half will receive a placebo. Nurses will note the patients' progress.

MEDTRONIC PRESIDENT

Medtronic, Inc., of Minneapolis announced in March that William W. George has been elected its president and chief operating officer. He also has been elected to the company's board of directors.

George joined Medtronic in early April from Honeywell, Inc., where he had been president of its space and aviation systems business since December 1987.

MEDTRONIC PACEMAKER APPROVED

Medtronic also announced in March that Synergyst, its new dual-chamber cardiac pacemaker with activity response, has been approved for commercial marketing by the U.S. Food and Drug Administration.

Synergyst is the world's first dual-chamber pacemaker that can also be programmed to function as a single-chamber, rate-responsive pacemaker. It then automatically senses the body's level of physical activity and adapts its rate of electrical impulses to the needs of the heart.

BIOLOGICAL PACEMAKER

Angeion Corp., of Plymouth, Minnesota, said in March that it has signed a joint venture agreement with CryoLife Inc., a Georgia biomedical company, to develop a biologically based pacemaker. Angeion said a biological pacemaker would serve the same function as electronic pacemakers but would be developed through the harvesting of cells from the heart, reproducing and growing them outside the body and returning healthy cells to the heart. The cells would produce the electrical impulse required for normal heart function.

DOES ANGIOPLASTY HELP?

The vast majority of heart-attack patients don't benefit from balloon angioplasty after receiving the clot-dissolving drug TPA, according to a nationwide survey published in the March 9, 1989, *New England Journal of Medicine.* The report studied 3,262 people at 50 hospitals around the country—including Fairview Southdale Hospital in Edina, St. Paul-Ramsey Medical Center, and Hennepin County Medical Center (HCMC) and Abbott Northwestern Hospital in Minneapolis.

About half received coronary angiography, followed by balloon angioplasty if warranted; the other half received less costly and less complicated drug treatment. Roughly the same percentage in each group died within 42 days of their heart attacks—10.9 percent in the balloon angioplasty group and 9.7 percent among those receiving the less complicated care. Morrison Hodges, M.D., chief of medicine at HCMC and one of the study's principal investigators, called the findings "surprising and controversial."

DISSOLVING GALLSTONES

A method of removing cholesterol gallstones without surgery shows considerable promise after a study of 75 patients at Mayo Clinic. The procedure uses methyl tert-butyl ether (MTBE), an investigational drug and cholesterol solvent, to dissolve stones.

MTBE is administered by catheter and is capable of dissolving cholesterol gallstones in an average of 12.5 hours. About 80 percent of all gallstones are predominantly composed of cholesterol.

The Mayo study of 75 patients was published in the March 9, 1989, *New England Journal of Medicine.* Of the 75 Mayo patients who participated, 72 achieved complete or greater than 95 percent stone dissolution. Johnson Thistle, M.D., Mayo Clinic gastroenterologist, is the principal investigator and inventor of the MTBE compound.

ALZHEIMER'S STUDY AT MAYO

The Mayo Clinic Jacksonville (Florida) will open a laboratory-based research program this summer on Alzheimer's disease. The program will initially study communication malfunction in nerve cells, which causes Alzheimer's, and the clinic plans to include tests of drugs and the use of imaging techniques to improve early diagnosis and treatment.

PRENATAL CARE OF BLACKS

Minnesota ranks among the 10 worst states in the country in the rate of black babies born with dangerously low birth rates, according to the Children's Defense Fund (CDF). The reason, according to a CDF report released in March, is that pregnant blacks are not using the many facilities and programs that are available. Luanne Nyberg of the Minnesota CDF office attributes this to black women feeling uncomfortable with the predominantly white Minnesota health care establishment.

Although Minnesota actually has a better black infant mortality rate than most states because of its high-tech medical facilities, the state is failing to reach blacks in the most cost-effective way—with prenatal care.

TRI-STATE HEART NETWORK

Twenty hospitals throughout North Dakota, South Dakota, and Minnesota announced on March 27 the establishment of an Emergency Heart Network. The network is a highly coordinated system designed to improve the emergency medical response to people suffering heart attacks.

"The Emergency Heart Network's goal is to reduce heart tissue damage by reducing the time between the onset of chest pain and treatment," says Lloyd Smith, president of St. Luke's Hospitals MeritCare, Fargo, North Dakota, which will serve as the network's coordinating facility.

Participating Minnesota hospitals are: Clearwater County Memorial Hospital in Bagley, Trinity Hospital in Baudette, North Country Hospital in Bemidji, Riverview Health Care Association in Crookston, Lake Region Hospital in Fergus Falls, Mahnomen County and Village Hospital and Nursing Center, Memorial Hospital and Home in Perham, and Roseau Area Hospital.

SMOKING AS CAUSE OF DEATH

Early this year Utah and Oregon became the first states to pass laws requiring physicians to list smoking as a cause of death on death certificates. The American Medical Association has urged other states to follow suit.

RATIONING CARE

Alameda County, California, has decided to ration care to the poor. In order for the county to stay afloat financially, county officials have decided to prioritize what medical programs and procedures the county needs to finance, and what care can be cut. Alameda is the first county in California—and apparently the country—to implement such measures.

SUFFER THE CHILDREN

The National Association of Children's Hospitals and Related Institutions issued a report in March that stressed that children's health in the U.S. is in jeopardy and called for more federal insurance to provide adequate care. The association cited the rising number of cases of child abuse and AIDS and a decline in access to medical care.

The report also drew attention to the number of uninsured children, which grew 13 percent in the last five years. About 12 million children have no health insurance.

HEPATITIS DETECTION TEST

A test for the detection of non-A, non-B hepatitis, a form of viral hepatitis for which there has never been a screening test, has been approved by the Food and Drug Administration for preliminary human clinical trials. Non-A, non-B hepatitis causes chronic liver damage in some recipients of blood transfusions, intravenous drug users, and a high percentage of hemophiliacs, almost all of whom typically become infected through transfusions of blood clotting factors made from contaminated human plasma.

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MEDICAL VALUATION SPECIALISTS

Brown from page 260

and 35 percent by federal sources, primarily research dollars. We rank fourth among all public medical schools nationally in federal research funding. The sizes of our medical education and research enterprises make us one of the larger medical schools in the United States and the world.

REECE: *How long have you been at the University of Minnesota? Track your career for us at the university.*

BROWN: I came to the university in 1961 for residency in pediatrics. Two years later, I went into pediatric endocrinology and metabolism. I left for two years to go into the Air Force and returned in 1967, when I developed my interests in pathology and nephrology. I went on to a dual program in laboratory medicine and various pediatric specialties. I became the director of the clinical laboratories and associate head of the Department of Laboratory Medicine and Pathology. I've maintained my research and clinical interests throughout that time.

REECE: *Tell us what your research interests are.*

BROWN: My research interests are in the causes of diabetic complications in the kidney. I try to reproduce the pathology and functional abnormalities of diabetic nephropathy. I study the pathology, biochemistry, and physiology of the kidney.

REECE: *Four and one-half years ago, you became dean of a large medical school that was in an extremely competitive environment. The medical school faculty itself is a complex creature with over 24 department chiefs and 550 faculty members. What have you learned during your tenure as dean?*

BROWN: I've learned that one has to have a great deal of patience and understanding for interpersonal relationships and for the many factors that influence medical research and education within the national, international, state, and university communities. Medical faculty are individualistic by the nature of their work, by both their research and patient care missions, and of course, by the fact that most of their educational enterprises occur on a one-to-one basis with the student. All of this culminates in a great intensity of pressures on both the individual and the institution and requires a considerable amount of understanding, patience, and guidance on my part.

"There are difficulties with individual faculty members being patient care providers or bedside teachers and, at the same time, researchers. In many instances it's not possible to be all these people."

REECE: *Someone has said "organized medical faculty" is an oxymoron. Three years ago, you organized the faculty into something called the University of Minnesota Clinical Associates (UMCA). Inform us how UMCA has fared and what changes it has wrought.*

BROWN: To talk of the medical faculty as a single organization exaggerates reality. But we have been pleased over the last few years by how well the clinical faculty members have developed functional and financial relationships with each other. We realize the world in which we live requires that people work together to achieve the same objectives in patient care, as well as to meet financial objectives. It is imperative that people develop functional relationships both within the institution and with outside health care providers.

The University of Minnesota Clinical Associates was pulled together as a mechanism for promoting connections to health care providers outside the realm of the university. UMCA has been an excellent vehicle for improving relationships with HMOs and PPOs in order to increase referrals. It has also brought the faculty closer together.

REECE: *The new University of Minnesota Hospital itself is a large organizational entity with a budget of over $250 million. What are the connections between the University Hospital and medical school faculty?*

BROWN: The patient care providers at the University Hospital are all full-time faculty at the university. All the physician staff appointments are by virtue of faculty appointments, so there is a great deal of interdependency between these institutions. Also, the University Hospital is a primary site for implementing the educational mission of the medical school. Therefore, the hospital is an integral part of our program. Finally, a great deal of clinical research is done within the University Hospital setting, so that, too, provides an important linkage with the medical school.

REECE: *Do you have enough patient flow through the University Hospital to educate all of your students, or do they go elsewhere? How is education for all the students carried out?*

BROWN: In terms of bed occupancy and flow of outpatients, the University Hospital and Clinic offers superb opportunities for educating students. But at the University of Minnesota, as well as every other medical school in the United States, the milieu in which patient care is provided does not offer an optimal experience for many important aspects of education.

For example, a lot of today's medical care is provided in the ambulatory care setting, so the students aren't exposed to many problems here that they would see in other settings. Consequently, those kinds of experiences have to be gained somewhere else. We have developed a significant ambulatory care educational environment and have an obligatory ambulatory care rotation for all medical students regardless of their specialty. We also encourage relationships with a variety of primary care providers throughout the Twin Cities area outside the hospital setting, and we are pleased that these new relationships have been a success. Of course, ambulatory training is also a board requirement in many primary care specialties such as pediatrics and medicine. So a special ambulatory care environment for education is critical for medical students and residents. More ambulatory patients are being seen at the University of Minnesota Hospital and Clinic but not of sufficient magnitude to provide a satisfactory pool for ambulatory eduation of our students. Most inpatients are critically ill and do not have the kinds of problems that are likely to predominate in a traditional medical or surgical care environment.

REECE: *How does one balance the mission of research with demands of competition? After all, you are one of the largest research medical centers in the United States, and yet you're smack dab in the middle of the hottest competitive market in the United States. That must create internal tensions.*

BROWN: There are difficulties with individual faculty members being patient care providers or bedside teachers and, at the same time, researchers. In many instances it's not possible to be all these people. Sometimes it's necessary for clinical faculty to look to relationships with faculty in other disciplines to help establish their research focus. In that setting they can bring together their patient care experiences and research. In addition, we do not require faculty to be primary researchers. They must, however, contribute significantly to the scholarship and the content of medical knowledge. Experiences in patient care leading to improvements in diagnosis or therapy are as valuable as classical bench research.

Faculty in the departments of medicine and pediatrics, both of which have strong research programs, accomplish those mutual objectives, with difficulty but with success, by increasing the intensity of their efforts and by sacrificing personal income in order to bring together the financial resources necessary to achieve both objectives. They accomplish their missions while providing excellent patient care, and they are superb role models for students.

REECE: *We've heard whimpering from the university as a whole that it is losing valued faculty members because it isn't competitive with other universities. Does that hold true with the medical school?*

BROWN: Most people within the medical school have lower salaries than those in the private sector and in other academic medical centers. We are experiencing difficulty competing at those levels.

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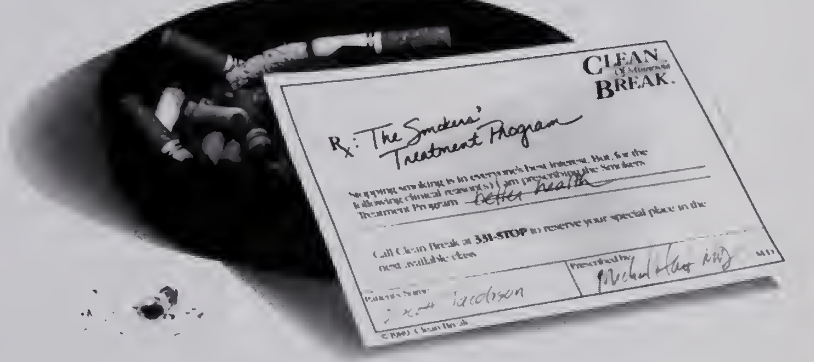

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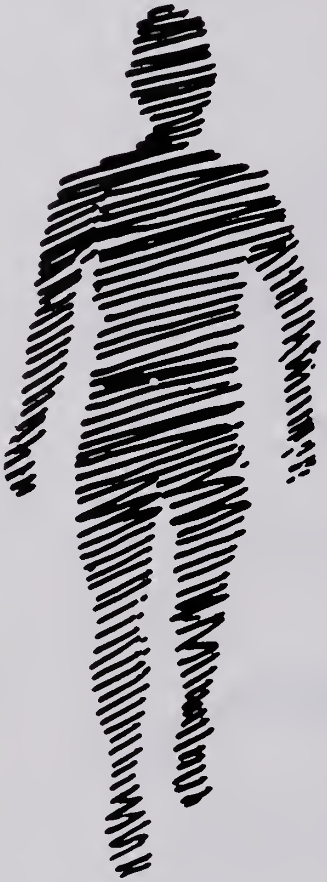

BIONICS & TRANSPLANTS

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Earning large incomes is not the primary motivation of people in an academic setting. Academic medical centers can't compete in that arena. On the other hand, academic centers need the financial wherewithal to achieve their academic objectives, and that requires a combination of public and private support. We do need more public resources to provide the appropriate setting for our faculty. For example, it is frustrating for an academician not to be able to institute an academic program, or for a department not to be able to recruit faculty, because of a shortage of research space. That kind of situation is likely to drive people to institutions that have developed more generous resources, more research space and equipment, and greater research support.

REECE: *So you periodically lose faculty to other academic medical centers?*

BROWN: Yes, but we do the best we can to recruit good new people. We have improved the strengths of many clinical departments, such as radiology, dermatology, neurology, and others. Our basic science departments are continuing to prosper after several years without growth. The medical school, by virtue of recruiting excellent faculty, has shown substantial improvement in overall status as compared with other sister institutions. However, we're straining at the seams. We know for certain that many faculty members have received more generous offers from prestigious institutions. We're in great jeopardy of losing them.

REECE: *Every university has a so-called "town-gown" problem. One perception among the town physician is that we have a surplus of physicians and that the university is graduating too many MDs. What is your medical class size? What are your plans for decreasing class size?*

BROWN: We have reduced the size of our medical class more than any other medical school in the United States, although the ratio of applicants to first-year positions in Minnesota is about equal to the national average. About five years ago, 239 students were admitted each year. This year we admitted 185 students. In addition, 48 students enter the medical class through the two-year medical school in Duluth, and the Mayo Medical School admits 20 Minnesota students for its 40-student class.

"Our objective is to create physicians who are broadly aware of and responsive to societal needs. . . . We want people to appreciate the broader spheres of society."

The quality of our class in terms of predictive standards—grade point average and medical college admission test scores—still remains above the national average. So the quality of the class is maintaining itself at a reasonable level. However, we are sensitive to the issues of manpower. We realize there is a declining pool of medical school applicants, which might ultimately jeopardize the quality of health care. That is why we have reduced the size of the class—to maintain the highest quality. Had we not done so, it would have severely compromised the quality of the people being trained in medicine.

There is still a need to continue to have primary care specialists. Furthermore, we've grossly underestimated the need for health care physicians for treating the elderly—a fast-growing segment of the population, as you know. Elderly people need more personal attention than they are currently receiving, which translates into needing more physicians for old people.

REECE: *Do you have a geriatrics department?*

BROWN: We do not have a department of geriatrics, but we have undertaken a significant review of the whole curriculum to improve our teaching of geriatrics and gerontology. Also, we're emphasizing geriatrics in family practice. We are also seeking additional support for developing geriatrics within the discipline of medicine.

REECE: *Let's talk for a moment about your current and future medical students. Are you changing your admission requirements or your curriculum in anticipation of future demands for a different kind of physician?*

BROWN: We have undertaken two major changes in admissions. Our objective is to create physicians who are broadly aware of and responsive to societal needs. People who are interested in medicine are from many backgrounds. We want to encourage students to broaden their experience before entering medical school. To do so, we have liberalized the requirements for entry into medical school by seeking students with a strong base in the humanities with only minimal requirements in the hard and biological sciences.

In addition, we have instituted an innovative advanced admission program. This program emphasizes learning rather than simply achieving grades within a narrowly defined curriculum. Students with a 3.5 grade point average or better at the end of their sophomore year are eligible to apply to the medical school, and they do not have to take the medical college admission test. This allows them to spend the last two years of college concentrating on learning rather than worrying about grades. They must achieve a minimum of a B average in the last two years. The second two years' curriculum is worked out in conjunction with the medical school adviser and the collegiate adviser to promote and encourage the student to pursue the academic area the student finds most intriguing. We anticipate this will spring them into medical school with an interest in the beauty of learning for its own sake.

REECE: *So you're emphasizing the humanities in the hopes of not turning out narrow technocrats?*

BROWN: That's exactly right. In fact, we want people to appreciate the broader spheres of society. The technical aspects of medicine certainly have to be learned, but there's a whole lifetime ahead to accomplish that objective. By the same token, the pleasure of learning is something that has to be returned to the educational environment. ■

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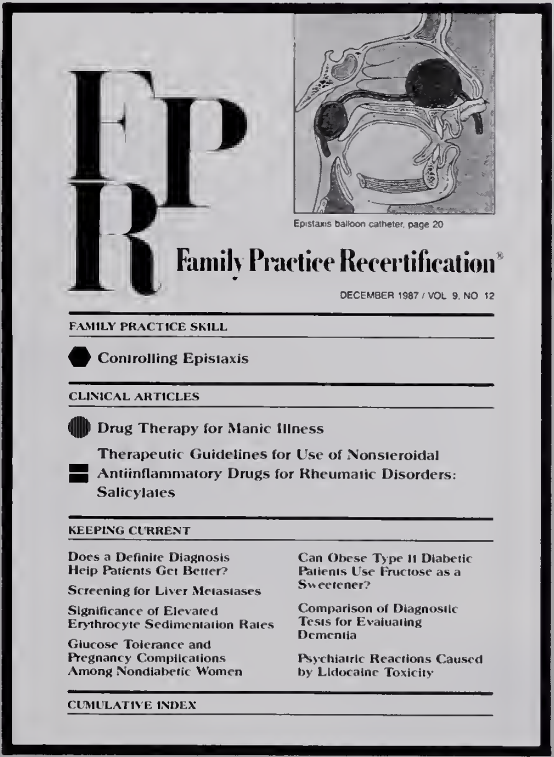

FPR

Epistaxis balloon catheter, page 20

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Drug Therapy for Manic Illness

Therapeutic Guidelines for Use of Nonsteroidal Antiinflammatory Drugs for Rheumatic Disorders: Salicylates

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HENNEPIN COUNTY MEDICAL CENTER/HENNEPIN FACULTY ASSOCIATES
CALENDAR OF MEDICAL EVENTS

April 26, 1989*

MINNESOTA REGIONAL SLEEP DISORDERS CENTER
Guest Speaker: Wallace Mendelson, MD, Stonybrook, New York
Insomnia and the Use of Sedative-Hypnotics--Dinner Program
Chairman: Milton Ettinger, M.D. and Mark Mahowald, M.D.
Normandy Inn, Minneapolis
*Rescheduled from April 19, 198

April 28, 1989*

GI: NEW APPROACHES TO OLD PROBLEMS
This program is designed for general internists, family physicians, surgeons and all primary care physicians who deal with gastrointestinal diseases. We will discuss recent developments in diagnoses and therapy of common GI problems. The goal will be to update the primary care physician in evaluating and treating these disorders.
Guest Speaker: E. Richard Ensrud, M.D., Champaign, Illinois
Co-Chairmen: Martin Freeman, M.D., and Robert Olson, M.D.
Hennepin County Medical Center, Minneapolis
*Rescheduled from April 7, 1989

May 11, 1989

RESEARCH AT HCMC -
"THIRD ANNUAL POSTER SESSION"
Chairman: William F. Keane, M.D.
Hennepin County Medical Center, Minneapolis

May 12, 1989

DIRECTORS OF MEDICAL EDUCATION (DME) CONFERENCE
This conference is designed for Directors of Medical Education, Chiefs of Staff, Hospital Administrators, Officers of County Medical Societies, Quality Assurance Personnel, and Medical Records Personnel. The theme for this year's conference is "Quality Assurance and Continuing Medical Education".
Guest Speaker: Paul J. Dugan, MD, Roseville, California
Chairman: Michael Belzer, M.D.
Hennepin County Medical Center, Minneapolis

June 9, 1989

SECOND ANNUAL TWIN CITIES TUTORIALS
"Tutorials in Rheumatology"
The subject of this year's symposium will be toxicity of non-steroidal anti-inflammatory drugs (NSAID). Special emphasis will be given to NSAID gastropathy, a newly recognized major health problem.
Guest Speaker: Malcolm Champion, M.D., Ottawa, Ontario, Canada
Chairman: M. Thomas Stillman, M.D.
Hennepin County Medical Center, Minneapolis

June 13, 1989

THIRTIETH ANNUAL
HITCHCOCK SOCIETY SURGICAL SYMPOSIUM
Chairman: Donald Jacobs, M.D.
Hennepin County Medical Center, Minneapolis

June 16, 1989

CONTROVERSIES IN PRIMARY CARE
This conference is designed for the primary care physician and will address controversies in the following areas: Sports Medicine, Gastroenterology, Hypertension, and Breast Cancer.
Guest Speaker: Rick Bay, Athletic Director, U of M
Co-Chairmen: Michael B. Belzer, M.D.; Marvin S. Segal, M.D.
Co-Sponsored with Metropolitan-Mount Sinai Medical Center.
Hennepin County Medical Center, Minneapolis

June 22-24, 1989

ACUPUNCTURE FOR PAIN CONTROL
A two part intensive study of acupuncture. Part I will address the history and basic concepts in acupuncture, a discussion on regional acupuncture for pain control, acupuncture and addictions, and research in acupuncture. Part I will serve as a prerequisite for Part II which will offer 11 hours of clinical acupuncture. Enrollment for Part II is limited and requires special permission of the conference chairman.
Chairman: Miles J. Belgrade, M.D.
Hennepin County Medical Center, Minneapolis

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BRIEF SUMMARY

CONTRAINDICATIONS

There are no known contraindications to the use of sucralfate.

PRECAUTIONS

Duodenal ulcer is a chronic, recurrent disease. While short-term treatment with sucralfate can result in complete healing of the ulcer, a successful course of treatment with sucralfate should not be expected to alter the post-healing frequency or severity of duodenal ulceration.

Drug Interactions: Animal studies have shown that simultaneous administration of CARAFATE (sucralfate) with tetracycline, phenytoin, digoxin, or cimetidine will result in a statistically significant reduction in the bioavailability of these agents. The bioavailability of these agents may be restored simply by separating the administration of these agents from that of CARAFATE by two hours. This interaction appears to be nonsystemic in origin, presumably resulting from these agents being bound by CARAFATE in the gastrointestinal tract. The clinical significance of these animal studies is yet to be defined. However, because of the potential of CARAFATE to alter the absorption of some drugs from the gastrointestinal tract, the separate administration of CARAFATE from that of other agents should be considered when alterations in bioavailability are felt to be critical for concomitantly administered drugs.

Carcinogenesis, Mutagenesis, Impairment of Fertility: Chronic oral toxicity studies of 24 months' duration were conducted in mice and rats at doses up to 1 gm/kg (12 times the human dose). There was no evidence of drug-related tumorigenicity. A reproduction study in rats at doses up to 38 times the human dose did not reveal any indication of fertility impairment. Mutagenicity studies were not conducted.

Pregnancy: Teratogenic effects. Pregnancy Category B. Teratogenicity studies have been performed in mice, rats, and rabbits at doses up to 50 times the human dose and have revealed no evidence of harm to the fetus due to sucralfate. There are, however, no adequate and well-controlled studies in pregnant women. Because animal reproduction studies are not always predictive of human response, this drug should be used during pregnancy only if clearly needed.

Nursing Mothers: It is not known whether this drug is excreted in human milk. Because many drugs are excreted in human milk, caution should be exercised when sucralfate is administered to a nursing woman.

Pediatric Use: Safety and effectiveness in children have not been established.

ADVERSE REACTIONS

Adverse reactions to sucralfate in clinical trials were minor and only rarely led to discontinuation of the drug. In studies involving over 2,500 patients treated with sucralfate, adverse effects were reported in 121 (4.7%).

Constipation was the most frequent complaint (2.2%). Other adverse effects, reported in no more than one of every 350 patients, were diarrhea, nausea, gastric discomfort, indigestion, dry mouth, rash, pruritus, back pain, dizziness, sleepiness, and vertigo.

OVERDOSAGE

There is no experience in humans with overdosage. Acute oral toxicity studies in animals, however, using doses up to 12 gm/kg body weight, could not find a lethal dose. Risks associated with overdosage should, therefore, be minimal.

DOSAGE AND ADMINISTRATION

The recommended adult oral dosage for duodenal ulcer is 1 gm four times a day on an empty stomach.

Antacids may be prescribed as needed for relief of pain but should not be taken within one-half hour before or after sucralfate.

While healing with sucralfate may occur during the first week or two, treatment should be continued for 4 to 8 weeks unless healing has been demonstrated by x-ray or endoscopic examination.

HOW SUPPLIED

CARAFATE (sucralfate) 1-gm tablets are supplied in bottles of 100 (NDC 0088-1712-47) and in Unit Dose Identification Paks of 100 (NDC 0088-1712-49). Light pink scored oblong tablets are embossed with CARAFATE on one side and 1712 bracketed by C's on the other. Issued 1/87

Reference:

1. Eliakim R, Ophir M, Rachmilewitz D: *J Clin Gastroenterol* 1987;9(4):395-399.

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Action: Yohimbine blocks presynaptic alpha-2 adrenergic receptors. Its action on peripheral blood vessels resembles that of reserpine, though it is weaker and of short duration. Yohimbine's peripheral autonomic nervous system effect is to increase parasympathetic (cholinergic) and decrease sympathetic (adrenergic) activity. It is to be noted that in male sexual performance, erection is linked to cholinergic activity and to alpha-2 adrenergic blockade which may theoretically result in increased penile inflow, decreased penile outflow or both.

Yohimbine exerts a stimulating action on the mood and may increase anxiety. Such actions have not been adequately studied or related to dosage although they appear to require high doses of the drug. Yohimbine has a mild anti-diuretic action, probably via stimulation of hypothalmic centers and release of posterior pituitary hormone.

Reportedly, Yohimbine exerts no significant influence on cardiac stimulation and other effects mediated by B-adrenergic receptors, its effect on blood pressure, if any, would be to lower it; however no adequate studies are at hand to quantitate this effect in terms of Yohimbine dosage.

Indications: Yocon® is indicated as a sympathicolytic and mydriatric. It may have activity as an aphrodisiac.

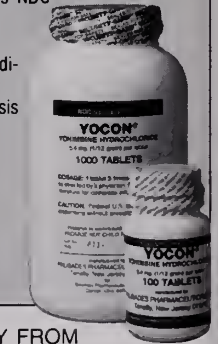
Contraindications: Renal diseases, and patient's sensitive to the drug. In view of the limited and inadequate information at hand, no precise tabulation can be offered of additional contraindications.

Warning: Generally, this drug is not proposed for use in females and certainly must not be used during pregnancy. Neither is this drug proposed for use in pediatric, geriatric or cardio-renal patients with gastric or duodenal ulcer history. Nor should it be used in conjunction with mood-modifying drugs such as antidepressants, or in psychiatric patients in general.

Adverse Reactions: Yohimbine readily penetrates the (CNS) and produces a complex pattern of responses in lower doses than required to produce peripheral a-adrenergic blockade. These include, anti-diuresis, a general picture of central excitation including elevation of blood pressure and heart rate, increased motor activity, irritability and tremor. Sweating, nausea and vomiting are common after parenteral administration of the drug.[1,2] Also dizziness, headache, skin flushing reported when used orally.[1,3]

Dosage and Administration: Experimental dosage reported in treatment of erectile impotence.[1,3,4] 1 tablet (5.4 mg) 3 times a day, to adult males taken orally. Occasional side effects reported with this dosage are nausea, dizziness or nervousness. In the event of side effects dosage to be reduced to ½ tablet 3 times a day, followed by gradual increases to 1 tablet 3 times a day. Reported therapy not more than 10 weeks.[3]

How Supplied: Oral tablets of Yocon® 1/12 gr. 5.4 mg in bottles of 100's NDC 53159-001-01 and 1000's NDC 53159-001-10.



References:

1. A. Morales et al., New England Journal of Medicine: 1221. November 12, 1981.
2. Goodman, Gilman — The Pharmacological basis of Therapeutics 6th ed., p. 176-188. McMillan December Rev. 1/85.
3. Weekly Urological Clinical letter, 27:2, July 4, 1983.
4. A. Morales et al., The Journal of Urology 128: 45-47, 1982.

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For assistance with scheduling meetings or for information on future medical meetings and CME courses at the state and national level, please contact the MMA office: 2221 University Avenue SE, Suite 400, Minneapolis, Minnesota 55414; (612) 378-1875. Information for each entry is arranged by date; name of program; primary sponsor; location; contact person.

MAY 1989

3 **Prescribing and Related Documentation** Minnesota Board of Medical Examiners; Redwood Falls, Minnesota. CONTACT: Board of Medical Examiners, 2700 University Avenue West, #106, St. Paul, Minnesota 55114-1080; (612) 642-0538.

3-7 **Advances in Mineral Metabolism** Snowmass, Colorado. CONTACT: Stephen Hodgson, M.D., Mayo Clinic, Division of Endocrinology, Rochester, Minnesota 55905; (507) 284-3844.

5 **Continuing Medical Education/Continuing Legal Education Conference** Hennepin Faculty Associates; Hennepin County Medical Center, Minneapolis, Minnesota. CONTACT: Eugenia Kassar, Hennepin Faculty Associates, 701 Park Avenue, Suite 4220, Minneapolis, Minnesota 55415; (612) 347-2075.

5 **Duluth Clinic Spring Primary Care Seminar** The Duluth Clinic, Ltd.; Fitger's Spirit of the North Theater, Duluth, Minnesota. CONTACT: James G. Brueggemann, M.D., 400 East 3rd Street, Duluth, Minnesota 55805; (218) 722-8364, Ext. 179.

5-6 **Current Concepts of Cardiology** Abbott Northwestern Hospital; Victorian Inn and Lodge, Hutchinson, Minnesota. CONTACT: Tim Schuh, CME Office, Abbott Northwestern Hospital, 800 East 28th Street, Minneapolis, Minnesota 55407; (612) 863-5461.

6-7 **Neonatal Resuscitation Course** Great Plains Organization for Perinatal Health Care; Airport Hilton, Minneapolis, Minnesota. CONTACT: Mary McClung, 1100 South Euclid Avenue, Sioux Falls, South Dakota 57117-5039; (602) 333-7191.

7-9 **19th Annual Meeting: The Impact of Society on Perinatal Care** Great Plains Organization for Perinatal Health Care; Airport Hilton, Minneapolis, Minnesota. CONTACT: Mary McClung, 1100 South Euclid Avenue, Sioux Falls, South Dakota 57117-5039; (612) 333-7191.

8-10 **First International Symposium on Myofascial Pain and Fibromyalgia** University of Minnesota CME; Hyatt Regency Hotel, Minneapolis, Minnesota. CONTACT: Patricia Morandi, Office of CME, Box 202 UMHC, 420 Delaware Street SE, Minneapolis, Minnesota 55455; (612) 626-5525.

8-12 **Family Practice Review: Update, 1989** University of Minnesota CME; Radisson University Hotel, Minneapolis, Minnesota. CONTACT: Office of CME, Box 202, UMHC, 420 Delaware Street SE, Minneapolis, Minnesota 55455; (612) 626-5525.

12 **Directors of Medical Education Conference** Hennepin Faculty Associates; Hennepin County Medical Center, Minneapolis, Minnesota. CONTACT: Eugenia Kassar, Hennepin Faculty Associates, 701 Park Avenue, Suite 4220, Minneapolis, Minnesota 55415; (612) 347-2075

13 **Pediatric Radiology: A Basic Course for the Primary Care Physician** Minneapolis Children's Medical Center; Minneapolis Children's Medical Center, Minneapolis, Minnesota. CONTACT: Debbie Bowman, 2525 Chicago Avenue South, Minneapolis, Minnesota 55404; (612) 863-6206.

15-16 **Annual Symposium on Gynecologic, Pathology/Oncology** University of Minnesota CME; Radisson University Hotel, Minneapolis, Minnesota. CONTACT: Office of CME, Box 202, UMHC, 420 Delaware Street SE, Minneapolis, Minnesota 55455; (612) 626-5525.

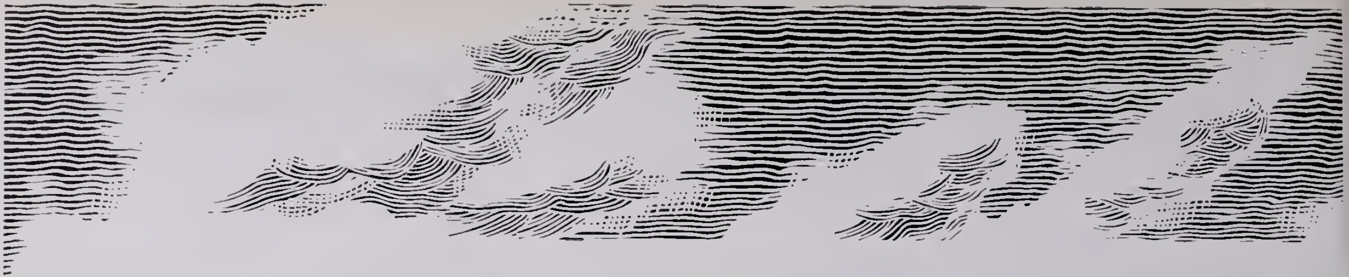
17 **Counseling of HIV-Positive Patients** Minnesota Medical Association in cooperation with Midwest AIDS Testing and Education Center; Holiday Inn, Duluth, Minnesota. CONTACT: Christine Talcott, Minnesota Medical Association, 2221 University Avenue SE, Suite 400, Minneapolis, Minnesota 55414; (612) 378-1875.

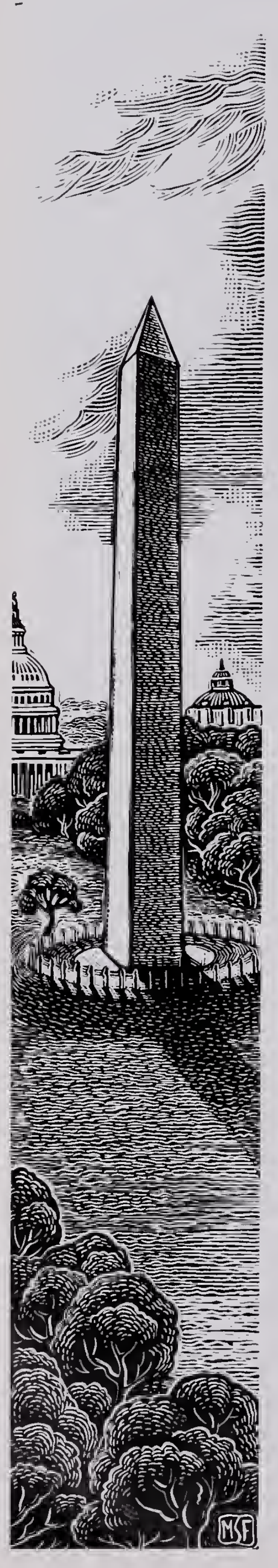
17-19 **Current Concepts in Radiation Therapy** University of Minnesota CME; Mayo Auditorium, University of Minnesota, Minneapolis, Minnesota. CONTACT: Office of CME, Box 202, UMHC, 420 Delaware Street SE, Minneapolis, Minnesota 55455; (612) 626-5525.

17-19 **The Meaning of the Holocaust for Medical Ethics** University of Minnesota CME; Radisson University Hotel, Minneapolis, Minnesota. CONTACT: Office of CME, Box 202, UMHC, 420 Delaware Street SE, Minneapolis, Minnesota 55455; (612) 626-5525.

19-20 **Vascular Laser Surgery: A "Hands-On" Training Program** Abbott Northwestern Hospital; Abbott Northwestern Hospital, Minneapolis, Minnesota. CONTACT: CME Office, Abbott Northwestern Hospital, 800 East 28th Street, Minneapolis, Minnesota 55407; (612) 863-5461.

21-23 **International Conference on the Treatment of Sex Offenders** University of Minnesota CME; Radisson University Hotel, Minneapolis, Minnesota. CONTACT: Office of CME, Box 202, UMHC, 420 Delaware Street SE, Minneapolis, Minnesota 55455; (612) 626-5525.





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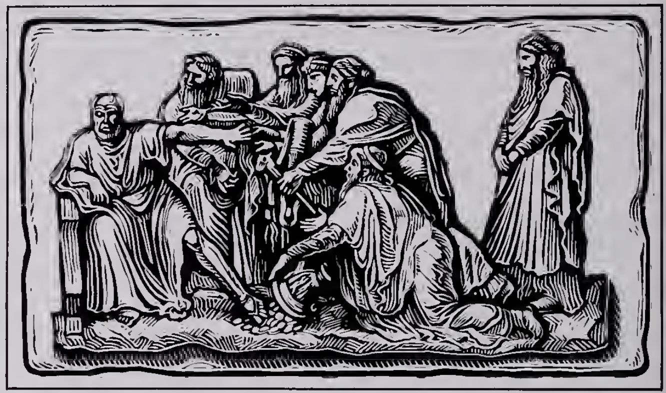

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CPR for Physicians – 6:00-8:00 p.m Gemini Room, Metropolitan-Mount Sinai Phillips Campus

May 6
Cardiology Conference for Primary Care Physicians. Sponsored by Mercy Medical Center, Metropolitan-Mount Sinai Medical Center and Unity Medical Center – Mercy Auditorium – 8:00 a.m.

May 9
"Pathophysiology of Anemia" by Joseph Cardamone, M.D. Health Central of Buffalo – 5:30 p.m.

May 11
"Injectible Antibiotics" by Virginia Banks, M.D., 12:00 noon, Sioux Valley Medical Center, New Ulm, MN.

May 23
"Vascular Headache" by Terrance D. Capistrant, M.D. – 7:30 a.m. River Falls Area Hospital

May
Practice Management Seminar – Topic, location and date to be determined

June 5
"Rheumatology Update" by Paul Waytz, M.D. – 6:30 p.m. – Health Central of Owatonna

June 16
"Controversies in Primary Care" Co-sponsored by Metropolitan-Mount Sinai Medical Center and Hennepin County Medical Center, Pillsbury Auditorium. Featuring luncheon Keynote presentation by Rick Bay, Athletics Director, University of Minnesota. The seminar will be divided into four topic areas: Gastroenterology, Hypertension, Breast Cancer, and Sports Medicine.

For further information, contact Beth Murphy, CME Manager, Medical Affairs Division, Health One. (612) 574-7716.

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23-24 **Human Aging XII: Nutrition in the Elderly and Aging** University of Minnesota CME; Radisson University Hotel, Minneapolis, Minnesota. CONTACT: Office of CME, Box 202, UMHC, 420 Delaware Street SE, Minneapolis, Minnesota 55455; (612) 626-5525.

May 27-Jun 13 **China/Yangtze River** North Central Medical Conference. CONTACT: North Central Medical Conference, 1845 Hampshire Avenue, Suite 200, St. Paul, Minnesota 55116.

JUNE 1989

2 **Uncertainties in Stroke Management** University of Minnesota CME; Radisson University Hotel, Minneapolis, Minnesota. CONTACT: Office of CME, Box 202, UMHC, 420 Delaware Street SE, Minneapolis, Minnesota 55455; (612) 626-5525.

2-3 **Workshops on Clinical Hypnosis: Introductory and Advanced** University of Minnesota CME; Sheraton Midway Hotel, St. Paul, Minnesota. CONTACT: Office of CME, Box 202, UMHC, 420 Delaware Street SE, Minneapolis, Minnesota 55455; (612) 626-5525.

2-3 **Lasers in General Surgery** Abbott Northwestern Hospital; Abbott Northwestern Hospital, Minneapolis, Minnesota. CONTACT: Tim Schuh, CME Office, Abbott Northwestern Hospital, 800 East 28th Street, Minneapolis, Minnesota 55407; (612) 863-5461.

8-10 **Medical Directors Training Program—3-Part Series** University of Minnesota CME; Riverwood Conference Center. CONTACT: Office of CME, Box 202, UMHC, 420 Delaware Street SE, Minneapolis, Minnesota 55455; (612) 626-5525.

9 **Eating Disorder Update: An Advanced Seminar on Anorexia Nervosa, Bulimia Nervosa, and Obesity** University of Minnesota CME; Radisson University Hotel, Minneapolis, Minnesota. CONTACT: Office of CME, Box 202, UMHC, 420 Delaware Street SE, Minneapolis, Minnesota 55455; (612) 626-5525.

9-10 **General Laser Surgery: A Hands-On Training Program** Abbott Northwestern Hospital; Abbott Northwestern Hospital, Minneapolis, Minnesota. CONTACT: Tim Schuh, CME Office, Abbott Northwestern Hospital, 800 East 28th Street, Minneapolis, Minnesota 55407; (612) 863-5461.

13 **13th Annual Hitchcock Society Surgical Symposium** Hennepin Faculty Associates; Hennepin County Medical Center, Minneapolis, Minnesota. CONTACT: Eugenia Kassar, HCMC, Hennepin Faculty Associates, 701 Park Avenue, Suite 4220, Minneapolis, Minnesota 55415; (612) 347-2075.

14-17 **53rd Annual Course—Progressive Hepatic, Biliary, and Pancreatic Surgery** Department of Surgery, University of Minnesota Medical School; Willey Hall, University of Minnesota, Minneapolis, Minnesota. CONTACT: Office of CME, Box 202, UMHC, 420 Delaware Street SE, Minneapolis, Minnesota 55455; (612) 626-5525.

17 **2nd Annual Star of the North State Games Sports Medicine Symposium** Governor's Council on Physical Fitness and Sport; Burnsville Senior High School, Burnsville, Minnesota. CONTACT: Robert Johnson, M.D., 5 West Lake Street, Minneapolis, Minnesota 55408; (612) 824-1647.

20 **W. Krivit Scientific Symposium** University of Minnesota CME; Radisson University Hotel, Minneapolis, Minnesota. CONTACT: Office of CME, Box 202, UMHC, 420 Delaware Street SE, Minneapolis, Minnesota 55455; (612) 626-5525.

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Mankato Clinic, Ltd. is seeking BE/BC physicians in the following specialties: allergy, dermatology, invasive cardiology, oncology, urology, ophthalmology, and general internal medicine. The Mankato Clinic is a 38-doctor multispecialty group practice in south-central Minnesota with a trade area population of 150,000. Guaranteed salary first year, incentive thereafter with full range of benefits and liberal time off. For more information, call Roger Greenwald, Administrator, or Dr. B.C. McGregor, (507) 625-1811 or write 501 Holly Lane, Mankato, Minnesota 56001. (R)

Family Physician needed to join group of five family physicians in St. Peter, Minnesota, population 9,000, located one hour south of Minneapolis. Contact: Curt Stolee, M.D., or D.A. Nygard, Administrator, St. Peter Clinic, Ltd., 622 Sunrise Drive, St. Peter, Minnesota 56082; (507) 931-2110. (R)

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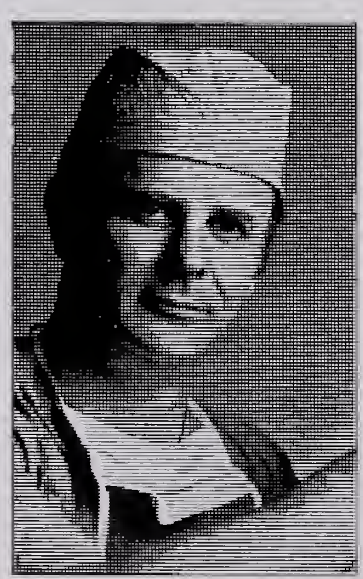

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The University of Minnesota School of Dentistry invites applications for part-time and full-time non-regular faculty for consultative diagnostic and treatment planning services in specialty clinics. M.D. required, with training and experience in otolaryngology, cleft palate patient care, and/or physical medicine and rehabilitation with experience in chronic pain. The University of Minnesota is an equal opportunity educator and employer and specifically invites and encourages applications from women and minorities. Send resume, indicating specialty or area(s) of clinical expertise, by 6/30/89 to: Dean Richard P. Elzay, University of Minnesota School of Dentistry, 515 Delaware Street SE, Minneapolis, Minnesota 55455. *1-5/89

Orthopedic Surgeon, Anesthesiologist: A progressive 131-bed, two-hospital system is seeking board-certified or board-eligible physicians to establish practices in the Iron Mountain area of Michigan's beautiful Upper Peninsula. Located 100 miles directly north of Green Bay, Wisconsin, Dickinson County Hospitals has a medical staff of 45 full-time physicians and a total service area population of over 40,000. For more information, contact: John Schon, President, Dickinson County Hospitals, 400 Woodward Avenue, Iron Mountain, Michigan 49801; (906) 779-4502. 2-6/89

Orthopedic Conference: New Perspectives in Pediatric Orthopedics, An Update: Date: October 5-7, 1989. Location: Landmark Resort in Egg Harbor, Wisconsin. Speakers: Alan L. Breed, M.D., Madison, WI; Alvin H. Crawford, M.D., Cincinnati, OH; Paul Esposito, M.D., Omaha, NE; John J. Hugus, M.D., Marshfield, WI; Walter W. Huurman, M.D., Omaha, NE; F. Stig Jacobsen, M.D., Marshfield, WI; David C. Mann, M.D., Madison, WI; H.A. Peterson, M.D., Rochester, MN; George W. Simons, M.D., Milwauke, WI; John G. Thometz, M.D., Milwaukee, WI; and Virginia Garnett-Wintersteen, M.D., LaCross, WI. Further information: Marshfield Clinic, Office of Medical Education, 1000 North Oak Avenue, Marshfield, Wisconsin 55449; (715) 387-5207. 2-6/89, 1-8/89

Large Family Practice Group of 35 physicians looking for eight additional family practitioners. We are located in recreational area in the southeast metro area of the Twin Cities. Contact: Maureen Arend, Regina Medical Complex, Hastings, Minnesota 55033; (612) 437-3121. 2-6/89

Great Location! 1/2-acre corner lot with two-bedroom home. Located across from Unity Hospital complex. Zoned C3. $152,000. Additional property available. Call: Bonnie Ryhn at (612) 464-7070, ERA MUSKE CO. 4-8/89

Family Practice—Hospital-Sponsored Clinic Opportunity: Dynamic, growth-oriented hospital in beautiful north central Wisconsin is seeking two family physicians for a new clinic facility currently being constructed. The administrative burdens of medical practice will be minimized in this hospital-managed clinic. The hospital has committed to an income and benefit package that is significantly higher than similar opportunities. Package includes base income, incentive bonus, malpractice, disability, signing bonus, and student loan reduction/forgiveness program. All relocation costs will be borne by the hospital. Please contact: Dan McCormick, President, Allen McCormick, France Place, Suite 920, 3601 Minnesota Drive, Bloomington, Minnesota 55435; (612) 835-5123. (R)

Braintree Hospital—Family Physician: Large rehabilitation hospital with vigorous outpatient department, satellites, and 152-inpatient beds is searching for a family physician to join its full-time medical staff. Opportunities present for teaching in a highly regarded training program, geriatrics, research. Braintree Hospital is located in one of the most desirable communities in the United States, combining cultural opportunities in the Boston area with a suburban setting and nearby Cape Cod. Outdoor activities include skiing, mountaineering, and sailing. Send CV or call: James Liljestrand, M.D., Vice President of Medical Services, Braintree Hospital, 250 Pond Street, Braintree, Massachusetts 02184; 1-800-333-2561, ext. 2165. An equal opportunity employer. *1-5/89

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Minneapolis, Minnesota: Minneapolis Children's Medical Center is seeking a BC/BE general pediatrician to expand a four-position hospital-based general pediatric group practice. The group specializes in the care of high-risk and medically complex children and families and is actively involved in pediatric and family practice resident education. Send CV to: Mitchell J. Einzig, M.D., Minneapolis Children's Medical Center, 2525 Chicago Avenue South, Minneapolis, Minnesota 55404; (612) 863-6936. An equal opportunity employer. *1-5/89

Pulmonary/Critical Care: Pulmonary/critical care physician needed to join the four-member pulmonary section of a 280-physician multispecialty medical clinic in the attractive Minneapolis-St. Paul area. Candidate should have skills in critical care, sleep disorders, and rest and exercise cardiopulmonary physiological evaluation. Interests in teaching and research desirable. Salary and benefits would be exceptional. Send CV and letters of inquiry to: Paul Greif, M.D., Park Nicollet Medical Center, 5000 West 39th Street, Minneapolis, Minnesota 55416. *1-5/89

Primary Care Physician: Opportunity for internist or family practitioner in north suburban area. Contact: Dr. Duane Orn, Northport Medical Center, 5415 Brooklyn Boulevard, Brooklyn Center, Minnesota 55429; (612) 533-8666. 1-5/89

Real Wilderness— joins St. Croix Wild River area. Two 80-acre tracts. Woodcock, grouse, deer, bear. Terms. Call: Jack (612) 629-2950 or 629-3579. 1-5/89

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Internal Medicine: Excellent opportunity for general internist to join a well-established group of four internists in southwest Minneapolis. Competitive salary and benefits. Contact: Scott Lindblom at (612) 371-6235. 1-5/89

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Medical Director, Student Health Clinic, South Dakota State University, August 1989: South Dakota State University is seeking a family practice physician or internist with interest/training in young-adult health care. Responsibilities include providing outpatient care for university students each day classes are in session and leadership for the Student Health Clinic medical and nursing staff. Will be expected to promote health education and wellness to patients and staff. Must share rotation of 5:00-10:00 p.m. week-night call with two other primary care staff. Weekends and holidays are free. Director will represent student health in the local medical community and serve on the Health Service Council.

Applicant must be eligible for South Dakota licensure and must provide evidence of successful experience with a young-adult clientele. Documented evidence is also required indicating experience in maintaining positive rapport with professional peers and usual clinic office personnel. It is desirable that candidate have prior student health experience, familiarity with eating disorders, human sexuality concerns, and chemical dependency issues.

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Send resume, letter of application, and three (3) current reference names, addresses, and telephone numbers to: Don Smith, Director of Student Health and Counseling, 202 West Hall, South Dakota State University, Brookings, South Dakota 57007; (605) 688-4157.

Closing date was April 25, 1989, but we will accept applications until position is filled.

"South Dakota State University is an Affirmative Action/Equal Opportunity Employer (Female/Male)." Minorities and women are encouraged to apply. Proof of eligibility for employment is required by the Immigration Reform and Control Act of 1986. *1-5/89

Wanted— pharmacist interested in starting clinic pharmacy. Will consider partnership. Write: Minnesota Medicine (833), 2221 University Avenue SE, Suite 400, Minneapolis, Minnesota 55414. 1-5/89

Family Practice: Prospering physician assistant seeks to employ or develop partnership with family practitioner with main clinic and satellite clinic located in the Heart of the Lakes area of Minnesota. Contact: Mark Helgeson, RPA-CP, (218) 338-4371. 1-5/89

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Contraindications: VASOTEC® (Enalapril Maleate, MSD) is contraindicated in patients who are hypersensitive to this product and in patients with a history of angioedema related to previous treatment with an ACE inhibitor

Warnings: *Angioedema* Angioedema of the face, extremities, lips, tongue, glottis, and/or larynx has been reported in patients treated with ACE inhibitors, including VASOTEC In such cases, VASOTEC should be promptly discontinued and the patient carefully observed until the swelling disappears. In instances where swelling has been confined to the face and lips, the condition has generally resolved without treatment, although antihistamines have been useful in relieving symptoms Angioedema associated with laryngeal edema may be fatal **Where there is involvement of the tongue, glottis, or larynx likely to cause airway obstruction, appropriate therapy, e.g., subcutaneous epinephrine solution 1:1000 (0.3 mL to 0.5 mL), should be promptly administered.** (See ADVERSE REACTIONS.)

Hypotension: Excessive hypotension is rare in uncomplicated hypertensive patients treated with VASOTEC alone Heart failure patients given VASOTEC commonly have some reduction in blood pressure, especially with the first dose, but discontinuation of therapy for continuing symptomatic hypotension usually is not necessary when dosing instructions are followed, caution should be observed when initiating therapy (See DOSAGE AND ADMINISTRATION) Patients at risk for excessive hypotension, sometimes associated with oliguria and/or progressive azotemia and rarely with acute renal failure and/or death, include those with the following conditions or characteristics: heart failure, hyponatremia, high-dose diuretic therapy, recent intensive diuresis or increase in diuretic dose, renal dialysis, or severe volume and/or salt depletion of any etiology It may be advisable to eliminate the diuretic (except in heart failure patients), reduce the diuretic dose, or increase salt intake cautiously before initiating therapy with VASOTEC in patients at risk for excessive hypotension who are able to tolerate such adjustments (See PRECAUTIONS, *Drug Interactions* and ADVERSE REACTIONS) In patients at risk for excessive hypotension, therapy should be started under very close medical supervision and such patients should be followed closely for the first two weeks of treatment and whenever the dose of enalapril and/or diuretic is increased Similar considerations may apply to patients with ischemic heart disease or cardiovascular disease in whom an excessive fall in blood pressure could result in a myocardial infarction or cerebrovascular accident If excessive hypotension occurs, the patient should be placed in supine position and, if necessary, receive an intravenous infusion of normal saline. A transient hypotensive response is not a contraindication to further doses of VASOTEC, which usually can be given without difficulty once the blood pressure has stabilized If symptomatic hypotension develops, a dose reduction or discontinuation of VASOTEC or concomitant diuretic may be necessary

Neutropenia/Agranulocytosis. Another ACE inhibitor, captopril, has been shown to cause agranulocytosis and bone marrow depression, rarely in uncomplicated patients but more frequently in patients with renal impairment, especially if they also have a collagen vascular disease Available data from clinical trials of enalapril are insufficient to show that enalapril does not cause agranulocytosis at similar rates. Foreign marketing experience has revealed several cases of neutropenia or agranulocytosis in which a causal relationship to enalapril cannot be excluded Periodic monitoring of white blood cell counts in patients with collagen vascular disease and renal disease should be considered

Precautions: *General. Impaired Renal Function.* As a consequence of inhibiting the renin-angiotensin-aldosterone system, changes in renal function may be anticipated in susceptible individuals In patients with severe heart failure whose renal function may depend on the activity of the renin-angiotensin-aldosterone system, treatment with ACE inhibitors, including VASOTEC, may be associated with oliguria and/or progressive azotemia and rarely with acute renal failure and/or death

In clinical studies in hypertensive patients with unilateral or bilateral renal artery stenosis, increases in blood urea nitrogen and serum creatinine were observed in 20% of patients These increases were almost always reversible upon discontinuation of enalapril and/or diuretic therapy In such patients, renal function should be monitored during the first few weeks of therapy

Some patients with hypertension or heart failure with no apparent preexisting renal vascular disease have developed increases in blood urea and serum creatinine, usually minor and transient, especially when VASOTEC has been given concomitantly with a diuretic This is more likely to occur in patients with preexisting renal impairment Dosage reduction and/or discontinuation of the diuretic and/or VASOTEC may be required

Evaluation of patients with hypertension or heart failure should always include assessment of renal function. (See DOSAGE AND ADMINISTRATION)

Hyperkalemia Elevated serum potassium (> 5 7 mEq/L) was observed in approximately 1% of hypertensive patients in clinical trials. In most cases these were isolated values which resolved despite continued therapy Hyperkalemia was a cause of discontinuation of therapy in 0 28% of hypertensive patients In clinical trials in heart failure, hyperkalemia was observed in 3 8% of patients, but was not a cause for discontinuation

Risk factors for the development of hyperkalemia include renal insufficiency, diabetes mellitus, and the concomitant use of potassium-sparing diuretics, potassium supplements, and/or potassium-containing salt substitutes, which should be used cautiously if at all, with VASOTEC (See *Drug Interactions.*)

Surgery/Anesthesia: In patients undergoing major surgery or during anesthesia with agents that produce hypotension, enalapril may block angiotensin II formation secondary to compensatory renin release If hypotension occurs and is considered to be due to this mechanism, it can be corrected by volume expansion

Information for Patients

Angioedema Angioedema, including laryngeal edema, may occur especially following the first dose of enalapril Patients should be so advised and told to report immediately any signs or symptoms suggesting angioedema (swelling of face, extremities, eyes, lips, tongue, difficulty in swallowing or breathing) and to take no more drug until they have consulted with the prescribing physician

Hypotension. Patients should be cautioned to report lightheadedness especially during the first few days of therapy If actual syncope occurs, the patients should be told to discontinue the drug until they have consulted with the prescribing physician

All patients should be cautioned that excessive perspiration and dehydration may lead to an excessive fall in blood pressure because of reduction in fluid volume Other causes of volume depletion such as vomiting or diarrhea may also lead to a fall in blood pressure, patients should be advised to consult with the physician

Hyperkalemia Patients should be told not to use salt substitutes containing potassium without consulting their physician.

Neutropenia Patients should be told to report promptly any indication of infection (e g , sore throat, fever) which may be a sign of neutropenia

NOTE As with many other drugs, certain advice to patients being treated with enalapril is warranted This information is intended to aid in the safe and effective use of this medication It is not a disclosure of all possible adverse or intended effects

Drug Interactions

Hypotension. Patients on Diuretic Therapy Patients on diuretics and especially those in whom diuretic therapy was recently instituted may occasionally experience an excessive reduction of blood pressure after initiation of therapy with enalapril. The possibility of hypotensive effects with enalapril can be minimized by either discontinuing the diuretic or increasing the salt intake prior to initiation of treatment with enalapril. If it is necessary to continue the diuretic, provide close medical supervision after the initial dose for at least two hours and until blood pressure has stabilized for at least an additional hour. (See WARNINGS and DOSAGE AND ADMINISTRATION)

Agents Causing Renin Release: The antihypertensive effect of VASOTEC is augmented by antihypertensive agents that cause renin release (e g , diuretics).

Other Cardiovascular Agents: VASOTEC has been used concomitantly with beta-adrenergic-blocking agents, methyldopa, nitrates, calcium-blocking agents, hydralazine, prazosin, and digoxin without evidence of clinically significant adverse interactions.

Agents Increasing Serum Potassium: VASOTEC attenuates potassium loss caused by thiazide-type diuretics Potassium-sparing diuretics (e g , spironolactone, triamterene, or amiloride), potassium supplements, or potassium-containing salt substitutes may lead to significant increases in serum potassium. Therefore, if concomitant use of these agents is indicated because of demonstrated hypokalemia, they should be used with caution and with frequent monitoring of serum potassium. Potassium-sparing agents should generally not be used in patients with heart failure receiving VASOTEC

Lithium: A few cases of lithium toxicity have been reported in patients receiving concomitant VASOTEC and lithium and were reversible upon discontinuation of both drugs Although a causal relationship has not been established, it is recommended that caution be exercised when lithium is used concomitantly with VASOTEC and serum lithium levels should be monitored frequently

Pregnancy—Category C. There was no fetotoxicity or teratogenicity in rats treated with up to 200 mg/kg/day of enalapr (333 times the maximum human dose) Fetotoxicity, expressed as a decrease in average fetal weight, occurred in rat given 1200 mg/kg/day of enalapril but did not occur when these animals were supplemented with saline Enalapril wa not teratogenic in rabbits However, maternal and fetal toxicity occurred in some rabbits at doses of 1 mg/kg/day o more Saline supplementation prevented the maternal and fetal toxicity seen at doses of 3 and 10 mg/kg/day, but not a 30 mg/kg/day (50 times the maximum human dose)

Radioactivity was found to cross the placenta following administration of labeled enalapril to pregnant hamsters

There are no adequate and well-controlled studies in pregnant women VASOTEC® (Enalapril Maleate, MSD) should b used during pregnancy only if the potential benefit justifies the potential risk to the fetus

Nursing Mothers: Milk in lactating rats contains radioactivity following administration of ^{14}C enalapril maleate It is no known whether this drug is secreted in human milk Because many drugs are secreted in human milk, caution should b exercised when VASOTEC is given to a nursing mother

Pediatric Use: Safety and effectiveness in children have not been established

Adverse Reactions: VASOTEC has been evaluated for safety in more than 10,000 patients, including over 100 patients treated for one year or more VASOTEC has been found to be generally well tolerated in controlled clinical trial involving 2987 patients

Hypertension The most frequent clinical adverse experiences in controlled trials were headache (5 2%), dizzines (4 3%), and fatigue (3%)

Other adverse experiences occurring in greater than 1% of patients treated with VASOTEC in controlled clinical trial were diarrhea (1 4%), nausea (1 4%), rash (1 4%), cough (1.3%), orthostatic effects (1 2%), and asthenia (1 1%)

Heart Failure The most frequent clinical adverse experiences in both controlled and uncontrolled trials were dizzines (7 9%), hypotension (6 7%), orthostatic effects (2 2%), syncope (2 2%), cough (2 2%), chest pain (2 1%), and diarrhe (2.1%)

Other adverse experiences occurring in greater than 1% of patients treated with VASOTEC in both controlled and uncontrolled clinical trials were: fatigue (1 8%), headache (1 8%), abdominal pain (1 6%), asthenia (1 6%), orthostatic hypotension (1.6%), vertigo (1.6%), angina pectoris (1.5%), nausea (1.3%), vomiting (1 3%), bronchitis (1.3%), dyspnea (1 3%), urinary tract infection (1 3%), rash (1 3%), and myocardial infarction (1 2%).

Other serious clinical adverse experiences occurring since the drug was marketed or adverse experiences occurring in 0 5% to 1% of patients with hypertension or heart failure in clinical trials in order of decreasing severity within each category

Cardiovascular Myocardial infarction or cerebrovascular accident, possibly secondary to excessive hypotension in high-risk patients (see WARNINGS, *Hypotension*), cardiac arrest, pulmonary embolism and infarction, rhythm disturbances, atrial fibrillation, palpitation

Digestive Ileus, pancreatitis, hepatitis or cholestatic jaundice, melena, anorexia, dyspepsia, constipation, glossitis.

Nervous/Psychiatric Depression, confusion, ataxia, somnolence, insomnia, nervousness, paresthesia

Urogenital Renal failure, oliguria, renal dysfunction (see PRECAUTIONS and DOSAGE AND ADMINISTRATION), prostate hypertrophy

Respiratory Bronchospasm, rhinorrhea, asthma, upper respiratory infection

Skin Herpes zoster, pruritus, alopecia, flushing, photosensitivity

Other: Muscle cramps, hyperhidrosis, impotence, blurred vision, taste alteration, tinnitus.

A symptom complex has been reported which may include fever, myalgia, and arthralgia, an elevated erythrocyte sedimentation rate may be present Rash or other dermatologic manifestations may occur These symptoms have disappeared after discontinuation of therapy

Angioedema Angioedema has been reported in patients receiving VASOTEC (0 2%) Angioedema associated with laryngeal edema may be fatal If angioedema of the face, extremities, lips, tongue, glottis, and/or larynx occurs, treatment with VASOTEC should be discontinued and appropriate therapy instituted immediately (See WARNINGS.)

Hypotension In the hypertensive patients, hypotension occurred in 0 9% and syncope occurred in 0 5% of patients following the initial dose or during extended therapy Hypotension or syncope was a cause for discontinuation of therapy in 0 1% of hypertensive patients In heart failure patients, hypotension occurred in 6 7% and syncope occurred in 2 2% of patients Hypotension or syncope was a cause for discontinuation of therapy in 1 9% of patients with heart failure (See WARNINGS)

Clinical Laboratory Test Findings:

Serum Electrolytes Hyperkalemia (see PRECAUTIONS), hyponatremia

Creatinine, Blood Urea Nitrogen In controlled clinical trials, minor increases in blood urea nitrogen and serum creatinine, reversible upon discontinuation of therapy, were observed in about 0 2% of patients with essential hypertension treated with VASOTEC alone Increases are more likely to occur in patients receiving concomitant diuretics or in patients with renal artery stenosis (See PRECAUTIONS.) In patients with heart failure who were also receiving diuretics with or without digitalis, increases in blood urea nitrogen or serum creatinine, usually reversible upon discontinuation of VASOTEC and/or other concomitant diuretic therapy, were observed in about 11% of patients Increases in blood urea nitrogen or creatinine were a cause for discontinuation in 1 2% of patients

Hemoglobin and Hematocrit: Small decreases in hemoglobin and hematocrit (mean decreases of approximately 0 3 g % and 1 0 vol %, respectively) occur frequently in either hypertension or heart failure patients treated with VASOTEC but are rarely of clinical importance unless another cause of anemia coexists In clinical trials, less than 0 1% of patients discontinued therapy due to anemia

Other (Causal Relationship Unknown): In marketing experience, rare cases of neutropenia, thrombocytopenia, and bone marrow depression have been reported

Liver Function Tests: Elevations of liver enzymes and/or serum bilirubin have occurred

Dosage and Administration: *Hypertension.* In patients who are currently being treated with a diuretic, symptomatic hypotension occasionally may occur following the initial dose of VASOTEC. The diuretic should, if possible, be discontinued for two to three days before beginning therapy with VASOTEC to reduce the likelihood of hypotension. (See WARNINGS.) If the patient's blood pressure is not controlled with VASOTEC alone, diuretic therapy may be resumed

If the diuretic cannot be discontinued, an initial dose of 2 5 mg should be used under medical supervision for at least two hours and until blood pressure has stabilized for at least an additional hour (See WARNINGS and PRECAUTIONS, *Drug Interactions.*)

The recommended initial dose in patients not on diuretics is 5 mg once a day Dosage should be adjusted according to blood pressure response. The usual dosage range is 10 to 40 mg per day administered in a single dose or in two divided doses. In some patients treated once daily, the antihypertensive effect may diminish toward the end of the dosing interval In such patients, an increase in dosage or twice-daily administration should be considered. If blood pressure is not controlled with VASOTEC alone, a diuretic may be added

Concomitant administration of VASOTEC with potassium supplements, potassium salt substitutes, or potassium-sparing diuretics may lead to increases of serum potassium (see PRECAUTIONS).

Dosage Adjustment in Hypertensive Patients with Renal Impairment. The usual dose of enalapril is recommended for patients with a creatinine clearance >30 mL/min (serum creatinine of up to approximately 3 mg/dL) For patients with creatinine clearance ≤30 mL/min (serum creatinine ≥3 mg/dL), the first dose is 2 5 mg once daily The dosage may be titrated upward until blood pressure is controlled or to a maximum of 40 mg daily

Heart Failure: VASOTEC is indicated as adjunctive therapy with diuretics and digitalis The recommended starting dose is 2 5 mg once or twice daily After the initial dose of VASOTEC, the patient should be observed under medical supervision for at least two hours and until blood pressure has stabilized for at least an additional hour. (See WARNINGS and PRECAUTIONS, *Drug Interactions.*) If possible, the dose of the diuretic should be reduced, which may diminish the likelihood of hypotension. The appearance of hypotension after the initial dose of VASOTEC does not preclude subsequent careful dose titration with the drug, following effective management of the hypotension. The usual therapeutic dosing range for the treatment of heart failure is 5 to 20 mg daily given in two divided doses. The maximum daily dose is 40 mg Once-daily dosing has been effective in a controlled study, but nearly all patients in this study were given 40 mg, the maximum recommended daily dose, and there has been much more experience with twice-daily dosing. In addition, in a placebo-controlled study which demonstrated reduced mortality in patients with severe heart failure (NYHA Class IV), patients were treated with 2 5 to 40 mg per day of VASOTEC, almost always administered in two divided doses. (See CLINICAL PHARMACOLOGY, *Pharmacodynamics and Clinical Effects.*) Dosage may be adjusted depending upon clinical or hemodynamic response (See WARNINGS.)

Dosage Adjustment in Heart Failure Patients with Renal Impairment or Hyponatremia In heart failure patients with hyponatremia (serum sodium <130 mEq/L) or with serum creatinine >1.6 mg/dL, therapy should be initiated at 2 5 mg daily under close medical supervision. (See DOSAGE AND ADMINISTRATION, *Heart Failure*, WARNINGS, and PRECAUTIONS, *Drug Interactions.*) The dose may be increased to 2 5 mg b.i.d., then 5 mg b.i.d. and higher as needed, usually at intervals of four days or more, if at the time of dosage adjustment there is not excessive hypotension or significant deterioration of renal function. The maximum daily dose is 40 mg

For more detailed information, consult your MSD representative or see Prescribing Information. Merck Sharp & Dohme, Division of Merck & Co., Inc., West Point, PA 19486. J6VS18R(815)

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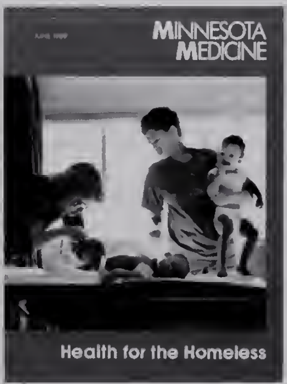

Cover Photo

THE HOMELESS An increasing number of Twin Citians have no permanent residence, and an alarming number of families have joined the ranks of the homeless. A group of doctors, nurses, and assistance workers have dedicated themselves to treating the homeless. Since homelessness has no known cure, they treat the symptoms and try to soften the hard lives of the people of the streets. (See features, pages 332 and 341.)

Cover photo, of Joanne Mellema, M.D., treating a patient at the 410, Inc. shelter in Minneapolis, by Rob Levine, a Minneapolis photographer.

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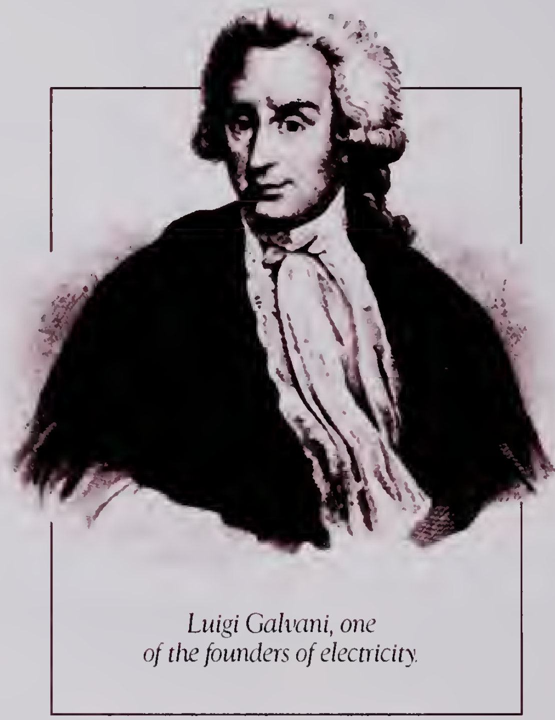

Luigi Galvani, one of the founders of electricity.

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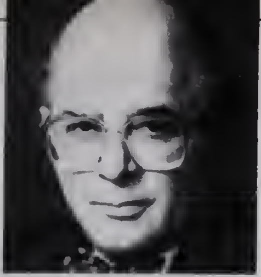

RICHARD L. REECE, M.D.

EDITOR'S NOTEBOOK

Health Care Technology, Inflation, and Outcomes: Take Heart

Health care inflation, still running twice the Consumer Price Index, and state budget woes remain on a collision course. In at least three states, legislatures have introduced Canadian-like price caps for health care, with plans that include phasing out all private insurance. Massachusetts has done essentially the same thing by banning "balanced billing" for most forms of insurance, and West Virginia has voted to ban such billing for public-assistance patients. In Minnesota, Healthspan, an employer-linked mandatory universal coverage, has generated tremendous interest both inside and outside the Legislature. All these state actions are propelled by inflation, which makes health insurance inaccessible or unaffordable to many. Technology, in turn, is driving health care inflation.

Why is Inflation So Irascible?

Why is American health care inflation so irascible? Why does technology account for nearly 50 percent of American health care inflation? And why do Canadians restrain costs at 30 percent less than we do?

Well, one big reason in Canada is that with one payer (the government) you can control technology a lot better than with 1,500 payers, as we have in the U.S. You control the inflation by refusing to buy new technology, by studying it until you have paralysis by analysis, by restricting its use in hospitals, and by making private insurance illegal, thus cutting off alternative financing by nongovernment sources. For politicians, these are sound strategies, especially in the introductory phase of national schemes, when waiting lines are short and intoxication with free care is exhilarating.

Limited Technology Use in Canada

But the key point is this: you limit inflation by limiting technology. In Canada, 11 hospitals exist in which open-heart surgery can be done; the U.S. has 793 such hospitals. In Canada, you can receive another person's organ in 14 hospitals; in the U.S. you can do so in 319 hospitals. Canada has 12 hospitals with MRI equipment; in the U.S., the number of units exceeds 1,200 and is climbing. In Canada, you routinely wait six months for an angiogram and another six to eight months for a coronary bypass. The tradeoffs are clear—in the U.S., soaring inflation and little waiting; in Canada, little inflation and soaring waiting lists.

Take Heart

Nowhere is inflation—both in the number of procedures performed and their cumulative cost—more obvious than with the U.S. technology for coronary artery disease. Because coronary artery disease is frightening and life-threatening, American cardiologists and cardiovascular surgeons are becoming increasingly aggressive in evaluating and treating the disease, using everything from stress tests to coronary artery bypass—with angiograms, percutaneous transluminal angioplasty, atherectomy stents, lasers, and thrombolysins in between.

Reasons for Inflation

Many factors play a part in driving this inflation: media publicity, rising patient expectations, more aggressive "invasive" cardiologists and surgeons, better technology, steadily improving results, a competitive market that encourages the growth of heart institutes and cardiovascular groups, ignorance as to what procedure is best, and an aging population. Not only is there an escalating demand for more procedures, but the supply of middle-aged and elderly patients with the disease is increasing as our population ages. The average age of coronary artery bypass patients has gone from 55 to 61 in the last five years.

Thus, we have the worst of all worlds, in an inflationary sense—open-ended demand and an exploding supply of technology and people to use it.

Observations of a Pathologist

Furthermore, as a pathologist who has done his share of autopsies, I can tell you that coronary artery disease is an endemic and omnipresent disease in Americans over age 50. I don't recall ever doing an autopsy on an American male over 50 who didn't have at least a trace of coronary disease.

Finally, as a clinical pathologist, I can tell you that coronary risk factor analysis, using data from the Framingham study and others, coupled with blood lipid studies, will permit you to spot, with considerable accuracy, those likely to have the disease.

Coronary Case Finding

Indeed, if you use such risk-factor analysis and study those at high

Editor's Notebook *to page 325*

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Editor's Notebook
from page 323

risk with stress cardiograms and other techniques, you can probably pick out 15 cases of significant obstructive coronary artery disease per 100 people in high-risk populations. You can even build a case for studying high-risk asymptomatic individuals with invasive techniques such as angiograms or even angioplasty or bypass surgery.

The Big Questions

These informational, technological, and inflational spirals lead to inevitable questions: When should "invasive" procedures be performed? Who should perform them? What should the criteria for invasion be? Should asymptomatic patients be subjected to invasive procedures at all?

These are not easy questions to answer.

Why not? Well, for one reason, the technology keeps changing—it evolves and it gets better. A Duke University study of 5,809 patients between 1969 and 1984, reported in the April 14, 1989, *JAMA,* found that medical therapy had better results than bypass surgery in the early years of the study, but by 1984, bypass surgery was significantly better than medical therapy for most patients. But now, after we've taken all those years to evaluate bypass versus medical treatment, we have another decision to make: coronary angioplasty or bypass surgery? If only we could get the technology to stand still, we might be able to say what's appropriate. Instead, we find that we cannot freeze technology in its tracks, and a moving target is hard to judge when it's going up a learning curve.

We can tighten criteria for doing procedures; we can limit the number of physicians who do procedures; we can reduce payments for procedures; we can restrict hospitals and outpatient sites where procedures are done. But we cannot, at any given point in time, say with absolute certitude whether one procedure is better than the other, particularly if these techniques are improving with use.

To curtail the number of procedures and to assure that the right ones are being done, health policy makers and payers will almost certainly concentrate on patient-outcome research similar to the Duke data bank.

For more informed opinions on cardiology, heart surgery, and related matters, I invite you to read this month's interviews with Dr. Jeremy Swan, co-developer of the Swan-Ganz heart catheter; Dr. John Najarian, the University of Minnesota's chief of surgery; and the review article by Dr. Robert Van Tassel and his colleagues at the Minneapolis Heart Institute. ■

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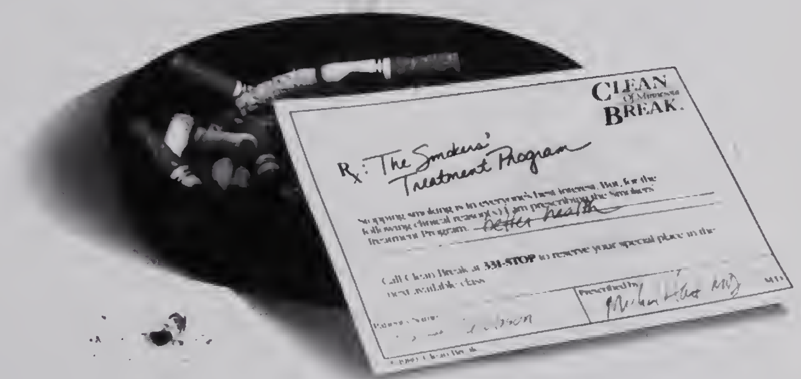
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Getting to the Heart of the Matter

REECE: *You're in the Twin Cities to give the Arthur Kerkof Memorial Lecture before the Metropolitan-Mount Sinai medical staff. Your title is "Myocardial Infarction: Hemodynamics to Thrombolytics." Being in Minnesota must be like coming home. You spent much of your early career here, did you not?*

SWAN: Yes, indeed. I have a soft spot in my heart for Minnesota. Even though it's freezing outside, I return here with a great sense of warmth. I owe a lot to this state, and I owe a lot to Mayo Clinic. I learned a tremendous amount from the people there, particularly Earl Wood, Howard Burchell, John Kirklin, Jesse Edwards—the people who were truly giants at the time.

REECE: *I believe you became a naturalized U.S citizen in St. Paul, Minnesota, in 1956.*

SWAN: That's right.

REECE: *What were you doing before you came to Minnesota?*

SWAN: I was born and raised in West Ireland and went to medical school in 1939 in England. I finished my medical training rather quickly during the war years. I became board certified in internal medicine in 1946 at the very tender age of 24. Because I was board certified, I went to the Middle East as an acting senior medical officer in the Royal Air Force. I spent two years in the Iraq desert and grew up very fast. I returned to the United Kingdom in 1948 and completed a Ph.D. in physiology with Nobel Laureate Sir Henry Dale as my senior adviser. I had planned to accept a Rockefeller Foundation scholarship to the University of Pennsylvania. Unfortunately, the professor I was to work with died in 1950. So instead, I came to Rochester, Minnesota, to work with Dr. Earl Wood, from whom I learned an enormous amount and will be forever grateful. I then joined the faculty at Mayo and became director of the

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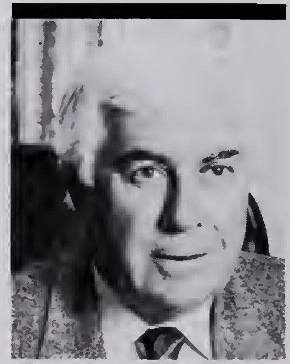


H.J.C. SWAN, M.D.

The day I interviewed Dr. H.J.C. Swan, or "Jeremy," as his friends are wont to call him, I had the pleasure of witnessing him in action in three settings—at a breakfast with his cardiology colleagues, in my office for an afternoon interview, and as an evening speaker at the annual Kerkhof Memorial Lecture before the Metropolitan-Mount Sinai medical staff.

In each of these circumstances, he displayed his gifts for rich language, his skills as a debater, his creativity as a scientist, his soundness as a physiologist, his precision as a speaker, and his warmth as a human being. When you're listening to Dr. Swan, you never have the smallest doubt where he stands. He is openly critical of the health care policy leadership in the United States. He is also skeptical about the current drift of cardiology, particularly the emphasis on invasive cardiology at the expense of clinical knowledge, and he denounces the indiscriminate use of balloon angioplasty. His style might be described as: "He who equivocates is lost." He is intense, alert, experienced, and in command of his facts and his position.

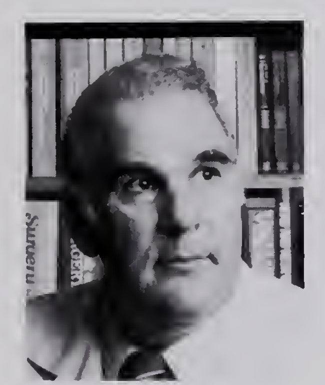
Dr. Swan was born in Ireland, received his medical and doctoral degrees in England, and spent from 1951 to 1965 at the Mayo Clinic, where he became director of the catheterization laboratory at St. Mary's Hospital in 1959 and stayed until 1965, when he departed for Los Angeles to become professor of medicine at the UCLA School of Medicine. Now, at age 67, Dr. Swan is still practicing cardiology, with the Cardiovascular Medical Group of Southern California.

Dr. Swan is a born teacher. In his one day in Minneapolis, he taught his audiences a great deal about: 1) how the time and extent of a coronary thrombus affects the myocardium and its function, 2) what the respective roles of percutaneous transluminal coronary angioplasty and coronary surgery ought to be, 3) how the problem of a 30 percent incidence of restenosis of angioplastic-treated coronaries should be approached, and 4) what's wrong with the organizational structure and certification of cardiologists. In summary, he showed us how valuable a visiting lecturer can be.

A Big Man in the World of Surgery

REECE: *Dr. Najarian, as we talk, you're in the process of preparing your presidential address for the American Surgical Association. What, in essence, do you plan to say in that speech?*

NAJARIAN: Basically, I'm going to talk about what makes up a surgeon—the necessary components being skill, science, and soul. And I will emphasize the importance of each of these components. So often in our training we get hung up on research and science, and we forget that the most important attribute of the surgeon is the ability to operate. The craft of surgery is something that requires more attention. An individual spends three years of the University of Minnesota program working on the craft of surgery before we ever send that person to a laboratory to learn research techniques.



JOHN S. NAJARIAN, M.D.

REECE: *Do you think the relationships between the skill, the science, and the soul of the surgeon are being tested in the new chaotic and competitive environment we find ourselves in, both nationally and locally? The surge of new expensive technologies further complicates these relationships, does it not?*

NAJARIAN: No question about it. As a matter of fact, in my address, I stress the point that with today's rapidly advancing technology in tissue and organ transplantation, it is the best of times and it is the worst of times. We are developing techniques that are leading to new ethical and moral dilemmas, which we must solve at the same time. There is often a clash between technology and ethics.

REECE: *Have you ever seen an era like this in surgery? The collision between runaway technologies and costs with emerging ethical problems, such as rationing of scarce organs, seems to me to usher in new vistas.*

I've learned two things about interviewing important people: you often talk to them when they're in a rush, and the speed of the interview and the chaos of the situation don't necessarily detract from the quality of the interview. This is because busy, successful people know how to stop what they're doing, shift mental gears, concentrate on the task at hand, and get on with it.

I'm giving you this preamble because I interviewed Dr. John Najarian, chief of surgery at the University of Minnesota Hospital, late on a Friday afternoon, after he'd completed a full day of transplant surgery.

When I spoke to him, he was in the midst of polishing a speech he was to deliver in a few days. The speech was the culmination of his year as president of the American Surgical Association. I'm sure the last thing he wanted to do was talk to me, but talk he did, in a booming voice over a loudspeaker phone.

As we chatted, my mind flashed back to my first exposure to John Najarian 20 years ago. We were fellow speakers at an educational program called MediClinics, for primary care physicians in Fort Lauderdale.

John stole the show. He was earthy, humorous, poised, at ease, and armed with slides detailing his rich surgical experience. He was big in every way—physically, intellectually, and emotionally. And he had a God-given touch for the crowd. I envied him. I still do. I came away with a deep respect for the man.

Since then, he has risen to greatness. He has, without doubt, the greatest name recognition of any surgeon in Minnesota. As chief of the Department of Surgery at the University of Minnesota, he has built a record of achievement in organ transplants unsurpassed anywhere. A year ago, American surgeons named him president of the American Surgical Association, and in 1987, his international peers selected him as one of the half-dozen or so American members of England's Royal College of Surgeons.

I'm not surprised by his fellow surgeons' accolades. If you're a big man with a big job and a big reputation, you do big things in a big way. I join other Minnesota physicians in congratulating him.

continued

NAJARIAN: I think so. We've never seen anything like this. It's a technological explosion in surgery: lithotripsy, laser angioplasty, vascular roto-rooters, all kinds of other procedures, plus the ability to transplant any organ from one individual to another and to transplant tissue into the brains of people with Alzheimer's and Parkinson's disease. There's no end to it. And it creates many of the moral and ethical dilemmas we see today.

REECE: *How do you prepare a surgeon to cope with this new turbulent world with its confusing and conflicting crosscurrents?*

NAJARIAN: One thing we do is actively discuss ethical problems in our department—so much so that the university's new director of biomedical ethics, Arthur Caplan, is a member of our department. Most technical problems that result in moral and ethical issues emanate from surgery. So, we have sessions on ethics, and we discuss these issues. In the journal *Clinical Transplantation,* of which I'm the new editor-in-chief, we've started an ethics corner, where three or four times a year Caplan will write about an ethical problem created by transplantation. We're hitting ethical issues head on, and we're looking into making ethics a formal part of our training of residents.

REECE: *All of these technology and ethics issues come together in transplant surgery. Transplants are dramatic, extremely expensive, and sometimes you can't get the organ when the patient is clearly dying. Potential candidates for transplants are often either children or adults in the prime of life. Your decisions tug at the heartstrings. I have no doubt that you're right at the center of this maelstrom.*

NAJARIAN: Absolutely. It's phenomenal. We keep creating "miracles," and every one of them brings with it its own dilemma. Nothing in nature is free. It all comes at a price.

REECE: *How do you deal with patients' expectations? I'm sure their expectations are extraordinarily high in your field, and it must be very painful for you to deal with giving patients bad news.*

NAJARIAN: The only way you can do it is to be buffered. Every day, people who have had successful organ transplants, like Jamie Fiske and many others, come to our transplant clinic. For balance and for inspiration, I make a point of going to the transplant clinic every week to see individuals who are out 5 years, 10 years, 15 years, some even 20 years, doing well and leading normal lives. These are people who would have been dead under any other circumstances. With enough human evidence of my achievements, I can again face the world of disappointments and conflicts. What I do is worth the costs of the disappointments and conflicts.

> **"So often in our training we get hung up on research and science, and we forget that the most important attribute of the surgeon is the ability to operate."**

REECE: *Let's talk a minute about your year as president of the American Surgical Association, which is coming to a close. What has your year entailed? What major issues have you faced?*

NAJARIAN: The year was very exciting. We considered many big problems. That surprised me, since we're the senior surgical society of the United States—109 years old. The American College of Surgeons is 75 years old, and the American Board of Surgery has been around only 50 years. So the American Surgical Association is truly the senior society. Therefore, people use the society as a sounding board for the official posture of surgery in various areas. As president of that association, I was called on by many different groups, including legislators, for surgical opinions about this and that.

REECE: *What issues have dominated this year? Has the Resource-Based Relative Value Scale been a central issue?*

NAJARIAN: The resource study has been one of the issues. After all, how we're going to pay future surgeons is important. As you know, professional fees have gone up remarkably in some specialty areas. That is a sore point for those who are paid less. We're looking for ways to improve the balance. That's just one of the issues we have addressed. There are many others. One that poses a perplexing problem is the involvement of academic physicians, surgeons in particular, in industry. How do we treat the vested interest someone may have in an industrial area of medicine when that person is doing research in that same area?

REECE: *Are you talking about heart/lung institutes?*

NAJARIAN: Not really. Certainly heart/lung institutes pose conflict-of-interest problems, but I'm talking about the investigator. If a given physician, for instance, starts looking at a particular heart valve, or does research on it and points out in scientific meetings that this valve is very good, and then we find out that he owns 50 or 25 percent of the company, we have a problem of vested interest. Many examples of this are emerging all the time. At this very institution, an investigator invented a valve that is manufactured by another company. Now, of course, he wants his royalties from that company. He promotes the valve. But is this the best valve around? It may sound like it is in scientific sessions, but perhaps the individual is making a pitch for his company.

REECE: *Isn't your valve example just the tip of the problem? Cardiovascular surgery is a black hole of finances for those who pay for America's high-tech adventures with heart surgery. Heart surgery is a fast-moving, highly technological, and very expensive area that creates equity temptations, investment opportunities, and disproportionate* *revenues for an institution. It drains a tremendous amount of revenue out of the general system.*

NAJARIAN: You've put your finger on it. Heart surgery is one of the major problem areas. The most rapid increase in professional fees has occurred there. Cardiac surgery is being done routinely today. Every day, an amazing number of people require coronary artery bypasses, let alone other vascular operations. And the fees are so lucrative that good surgeons are lured away from academic centers, unfortunately. In fact, people have said jokingly that the academic cardiac surgeon may eventually be put on the endangered species list.

REECE: *Another problem is that coronary artery disease is endemic in Western civilization. You can never mobilize enough resources to surgically unplug all the coronary arteries in the Western world, particularly if you're aggressive enough to go after asymptomatic coronary disease.*

NAJARIAN: You've touched on a huge, difficult problem. Who should get a coronary bypass and who shouldn't? If you did enough angiograms, you would find that all of us have some narrowing of our coronary arteries. How far do you go? Who should receive such an operation? Should it be done by the interventionalist cardiologist, with angioplasty, or by the heart surgeon?

REECE: *May I bypass your answer by switching subjects? I'd like to talk for just a minute about the University of Minnesota Hospital. You opened up your new 432-bed hospital in March of 1986. As an outside observer, I have gained the impression that your new unit has been a smashing success.*

NAJARIAN: It has. It's been a tremendous success and continues to be. Initially, we were amazed when our census increased from around 55 to 60 percent to 75 to 80 percent, and we attributed the growth to the "new hospital effect." We expected it to last about six months. Now we're three years along, and the so-called "new hospital effect" is still with us. Basically, people have understood for years that the top doctors are at the University Hospital. In the old hospital, facilities were sometimes less than desirable. Beds and other clutter were often in the hallways. The newer facility gives us the advantage of excellent doctors *and* an excellent facility.

REECE: *Wasn't the University of Minnesota designated as one of the national transplant centers?*

"We keep creating 'miracles,' and every one of them brings with it its own dilemma. Nothing in nature is free. It all comes at a price."

NAJARIAN: Yes, we are one of the national resources for transplantation. In 1987, the federal government selected the University Hospital as a transplant center where Medicare recipients can receive a heart transplant. More recently, Prudential named the University Hospital one of eight centers nationwide where policyholders can receive coverage for three types of organ transplants. We have always had a national reputation for transplantation. As a matter of fact, 50 percent of our transplant patients come from outside the state.

REECE: *Where are the leading heart transplant centers in the U.S.?*

NAJARIAN: You certainly have to put Stanford at the top of the list as the original innovative institution. Besides the University of Minnesota, other top heart transplant centers would include Pittsburgh, Johns Hopkins, the University of Arizona in Tucson, and Baylor School of Medicine in Houston. Steves Ring, from our program, has gone to Dallas, and that program is coming together quite well, too. The University of Alabama has always had a strong program with John Kirklin, and his son is now following in his footsteps.

REECE: *I have interrupted your preparation of your speech for the American Surgical Association. Maybe I should end on a more lofty royal note. You were recently elected as an honorary fellow of the Royal College of Surgeons in London. How many Royal College fellows are there in the U.S.?*

NAJARIAN: I would guess a half-dozen or so. It is a great honor. It is always an honor to be recognized by an international group, but particularly, by the Royal College. The college is the basic foundation of much of our surgery today. ■

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LETTERS TO THE EDITOR

Fiscal Disparity

You have done an excellent job of bringing to light the fiscal disparity between the payment of rural physicians and hospitals and urban physicians and hospitals. I have been involved in this issue as a member of the National Advisory Committee on Rural Health of the Health Care Financing Administration. In May we will be working hard to come up with a definitive recommendation to the Secretary of Health and Human Services.

I just want to congratulate you on a job well done. I will do my best to have all of the information included in your April *Minnesota Medicine* sent to the members of our Rural Health Advisory Committee so that they can read it before our meeting in May.

R. T. Kelly, M.D.
The Itasca Clinic
Grand Rapids, Minnesota

Contraindications

In your very interesting March interview with Francis Davis, M.D., founder and publisher of *Private Practice* ("Thunder on the Right," *Minnesota Medicine*, March 1989), he describes the following vignette: "A doctor friend of mine had a patient who was dying of asthma. He gave her some phenobarbital to relax her; it did, and she died. He was criticized for not giving her Valium instead of phenobarbital, and they threatened to kick him out of the system (PRO)." Dr. Davis goes on to relate that the PRO dropped the case after the physician retained a lawyer to represent him. Dr. Davis uses this anecdote to help him decide that he is totally against PROs and implies it is acceptable practice to administer tranquilizers to patients suffering life-threatening asthma. This cannot go unchallenged.

The informed medical community has known for at least 20 years that tranquilizers, sedatives, morphine, and meperidine are absolutely contraindicated in status asthmaticus patients who are not supported by mechanical ventilation, since these drugs are respiratory depressants, and their use may make the patient fail to meet the necessary work requirements for alveolar ventilation. There is absolutely no evidence that tranquilizers or sedatives are useful in aborting an attack of status asthma.

This story also serves as another example of the ineffectiveness of the PRO system in monitoring patient care decisions.

William F. Schoenwetter, M.D., F.A.C.P.
Allergy Department
Park Nicollet Medical Center
Minneapolis, Minnesota

Misplaced Bravado

I'm really rather disappointed (and a bit embarrassed) regarding the April article on Dr. Allen Van Beek ("Dr. Allen Van Beek: Saving Lives and Limbs in Rural Minnesota," *Minnesota Medicine*, April 1989). In my view, this type of "presentation" in our state medical journal is quite out of keeping and belongs on the pages of the *Star Tribune!* I would hope that this is the first and last of this sort of personalized bravado.

Edward L. Seljeskog, M.D.
Department of Neurosurgery
University of Minnesota Hospital
Minneapolis, Minnesota

A Change for the Better

In years gone by, I was often vaguely embarrassed by *Minnesota Medicine*. This was especially true when I read a poor or sloppy manuscript or looked at the contents in relation to our readers—mostly rural physicians—and wondered how we could be more useful to them.

All that has changed. You have developed a useful and relevant journal that must be of value to almost every doctor in the state.

Congratulations.

Charles W. Jarvis, M.D.
White Bear Lake, Minnesota

Health for the Homeless

Twin Cities Care Teams Reach People of the Streets

Medical practice differs the world over. While the physician's main mission— treating the sick — doesn't change, the cultural contexts and circumstances where healers work vary widely. Doctors in Hennepin and Ramsey counties who care for the Twin Cities' homeless enter a world that may seem alien to physicians in private practice. But the language of care they speak to homeless patients is universally understood. ♦ "The homeless lead lives so different from mine, it's like talking to someone from outer space," said Tim Rumsey, M.D., a member of a small but dedicated team of health care professionals, including doctors, nurses, chemical dependency counselors, social workers, and economic assistance workers, who don't let the culture barrier stand in their way. They're setting up shop in emergency shelters throughout Minneapolis and St. Paul to reach the people of the streets.

Peter J. Kizilos

Photographs by Rob Levine

Joanne Mellema, M.D., examines a patient at 410, Inc., the largest emergency shelter for homeless women and children in Minneapolis.

"Our whole approach—the team approach of going into the shelters and meeting them on their own turf—helps. We also have tremendous continuity, because we've all been involved for a long time. [The homeless] can see that we respect the folks and their position," said Rumsey, a St. Paul family physician.

The work of physicians like Rumsey is funded by the Stewart B. McKinney Act, passed by Congress in 1987. The government provides McKinney money to support a variety of programs for the underprivileged in communities across the country. The first year that grants were awarded, 1987, two similar homeless health care projects in Hennepin and Ramsey counties received about $.5 million and $.4 million, respectively, to assist the homeless.

The U.S. Public Health Service expects the programs to offer "not just medical services, but public health services," says Elaine Saline, director of the Ramsey County's Health Services for the Homeless program. "We're the catalyst to putting all the pieces together for the client. That means we have to look at housing, other support services, what is their education, what are their previous jobs, and what's possible in terms of self-sufficiency," she said. While doctors and nurses attend to medical needs, social and economic assistance workers ease people back into society.

Ramsey County's health care teams see more than 100 homeless clients a week at five different shelters—about 8,700 patient visits last year, according to Saline.

Ramsey's counterpart, the Hennepin County Homeless Assistance Project, also treats about 60 to 100 patients per week and served 1,292 homeless people from mid-March of 1988, when the program began, to the end of last year, said Allain Hankey, director of that program.

Although it may seem an impressive record, there's still much to do, Hankey said. Many people who don't meet the McKinney Act's definition of homeless slip through cracks in the system. "There's an enormous number of people who are near-homeless and uninsured whom we can't serve," she said.

The patients they do serve present multiple ills, and doctors must tailor treatment to meet their special needs. What are those techniques? What are the personal rewards, and the frustrations, of treating these disenfranchised and alienated people? How do physicians overcome psychological barriers to treatment? Front-line physicians have their own answers.

Why are some doctors called to serve the poorest of the poor? The personal satisfaction of helping fellow human beings in need tops the list. But there are other reasons. Some physicians prefer practicing without bureaucratic hassles. Others talk about their personal and religious

Ramsey County's homeless assistance team sets up shop in the back of the Dorothy Day center in downtown St. Paul.

values and commitment to social justice. All express a genuine interest in the strange, but true, life stories of the homeless.

The financial rewards of private practice can't compete with the personal satisfaction of helping someone in great need, says family physician Dana Bryan. "There's a lot of frustration today in everyday medicine. In my private practice I've got a list as long as my arm."

In treating the homeless, Bryan is able to practice her profession without all those hassles. "I don't have to deal with all the paperwork and other stresses in modern medicine. I can do what I wanted to do all along, which is work one-on-one with patients. Somebody brings you a problem, and you try to solve it," she said.

Bryan visits patients at the Dorothy Day drop-in center and Union Gospel Mission in St. Paul Thursday evenings. Tim Rumsey, her colleague at United Family Practice in St. Paul, sees Dorothy Day patients on Thursday mornings.

While doctors and nurses attend to medical needs, social and economic assistance workers ease people back into society.

Rumsey considers himself a practical practitioner, not a missionary treating unhealthy heathen. "Anything on the altruistic side is just realistic, from my standpoint," he said. "I think communities need to take care of these people and offer them opportunities to increase their level of independence."

Others find intangible rewards that are absent from the practice of more mundane medicine. "You find you get more out of it than you give, in terms of personal satisfaction," said William L. Hedrick, M.D., an internist at Riverside Medical Center who treats the homeless in Minneapolis. "You also get back to the basics of practicing medicine. It's a different form of health care; you're not worried about billing people, discounts, or who's covered and who

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isn't," he said.

Chris Reif, M.D., medical director of Ramsey County's program, says personal values motivate him to treat the homeless. "I would call myself a child of a good, Minnesota Christian family and also a child of the '60s. Those are two powerful reasons for people to work in this field. It makes me see that we're all one family of humankind," says Reif, a physician at St. Paul-Ramsey Medical Center and head of St. Paul's Helping Hands Community Health Center.

Reif doesn't consider himself, or his own family, to be insulated from the social ills causing homelessness. "It's not a question of separating myself from *their* problems when I go home. These are problems of the American family," he said.

And it's the family that's often in trouble, according to Allain Hankey. "Nearly half of the people we're seeing are families. In 1988, 15 percent of the people we saw were children under age 14, and 11 percent were adolescents. So nearly a quarter of the people we saw were minors. Twenty-five percent of our teens were pregnant, and 15 percent of women 20 to 44 were pregnant," she said.

Charles Oberg, M.D., medical director of the Hennepin County Homeless Assistance Project, was a driving force in that county's efforts to obtain federal funding for its program. As a pediatrician at Hennepin County Medical Center, Oberg has made a practice of treating indigent families with health problems.

"The patients I see at Hennepin County—though they may not all be homeless—have their own set of serious problems," Oberg said. "We have a separate teen-parent clinic where we see adolescent parents and their kids and help them try to find some stability in their life. We try to get them to

Tim Rumsey, M.D., arrives at St. Paul's Dorothy Day center with an arm load of boxes full of medical supplies donated by other physicians.

move on and become productive members of society."

Because the women and children Oberg sees are most amenable to treatment, he's participated in many success stories. With help, says Oberg, people are able to weather extreme adversity and land on their feet. "I've been very impressed by the resiliency of these families. Despite their homelessness and their inadequate resources, they continue striving to make their lives better," he said.

Oberg and Joanne Mellema, M.D., are the only regular staff physicians in Hennepin County's program, although other physicians volunteer their time. Mellema, who came on board full time in November, sees patients at 410, Inc., the largest emergency shelter for homeless women and children in Minneapolis. Three health care teams visit patients at 14 community locations, including seven shelters, five drop-in centers, and two transitional housing facilities.

Ramsey County's project relies on the work of four doctors: medical director Chris Reif, Dana Bryan, Tim Rumsey, and Bruce Sieleni, a psychiatrist at St. Paul-Ramsey Medical Center.

Partly due to Oberg's urging, more physicians are experiencing the rewards of practicing community medicine. That 30 physicians from the Riverside Medical Center in Minneapolis, William Hedrick among them, joined the cause in January is especially gratifying to Oberg. "I think it's a beautiful example of people with an interest and desire to do some community medicine," Oberg said. "It's not just physicians with family practice or internal medicine training. We're finding people with a variety of medical backgrounds."

The simple desire to serve people outside society's mainstream is the qualification all concerned physicians have in common. Patience and perspective are also musts for doctors to avoid frustration.

Because homeless people often have long histories of hardships—reform school, foster care, chemical abuse, mental illness, physical and sexual abuse, and legal problems—they suspect the motives of people in authority.

"These folks have hit bottom, and, in their eyes, every institution has failed them," Tim Rumsey explained. A therapeutic bond is possible only when doctors convince patients of their sincerity.

Doctors are taking their stethoscopes to the street to show homeless people "the system" isn't always suspect, says Rumsey's colleague, Dana Bryan. "I think it makes sense to take the health care to this transient population. They're often not comfortable or happy going to other institutional settings where we can reach them. If you wait for them to come into the office, you could be waiting forever."

Patients seeking help at Dorothy Day, the Salvation Army, Theresa Living Center, Women's Advocates, and other St. Paul shelters first approach the nurse on duty to describe what ails them, explained Ramsey County program director, Elaine Saline. "The patient signs up and gives some demographic information. The nurse takes the individual aside and asks what the problem is. We try to be as private as we can about that. The nurse does the triaging to determine if the [patient] needs to be seen by a doctor or not."

The doctors have found they must be especially careful to show respect for these patients, Rumsey said. "I think it's partly a matter of body language. I usually shake hands and introduce myself. I ask a little bit about their lives to show my interest. In examining, I ask permission to do things. I don't just shove my stethoscope up their shirt. Of course, I try to work that way with all my patients, but I make a special effort here just to communicate respect," he said.

Patients won't discuss medical problems or comply with treatment unless they trust their doctor. Building that trust takes a long time in some cases. "This one mentally ill person would circle the desk. For about a year he did this," Rumsey said. "Then he finally asked a nurse to take his blood pressure. Then he asked for a cold tablet. Now he's seeing us. So, his way of bridging that distance took a long time."

In other situations, doctors must abruptly intervene to aid people who deny their severe medical or psychological problems. "We saw a person who was clearly psychotic and in need of assistance," Rumsey said. "He would see us then walk out in the middle of the exam."

> **"It's not a question of separating myself from *their* problems when I go home. These are problems of the American family."**

Since the man refused the treatment he desperately needed, the team eventually petitioned to commit the man to the state hospital.

"This person was very angry and mistrustful to begin with, and that made him more so. But ultimately, it helped him. I've seen him since," Rumsey said.

For psychiatrist Bruce Sieleni, building trust with his homeless patients is even more of a challenge. Schizophrenic patients and those suffering major depressive disorders often fear his power to commit them to a state hospital. "The stigma of having a psychiatrist down at the Dorothy Day center might make people uncomfortable. I do understand those fears," said Sieleni, who has found that patients' suspicions often hinder treatment compliance. "One of the toughest things for me, personally, is not being able to convince people that I'm not there to poison them or make their lives miserable, that psychiatric medications do help people feel and function better," he said.

Many people resist medications because of bad experiences, or some people, not knowing what to expect, panic when they experience side effects. To reassure them,

Chris Reif, M.D., medical director of the Ramsey County Health Services for the Homeless project, examines a patient at the Union Gospel Mission in St. Paul.

Sieleni thoroughly explains the purpose of drug therapy and his role in treatment. "I spend a lot of time talking about the meds and side effects—what it can and can't do for their lives, what my limitations are as a physician, what my expectations are. I also reassure people I'm not intervening in decisions about jobs or where they're going to live," Sieleni said.

> **"These folks have hit bottom, and, in their eyes, every institution has failed them."**

His couch-side manner wins over many once-reluctant patients. "I really don't want to mess around in people's lives. I don't care if they're homeless or have committed crimes. Since that's not really my responsibility, I don't take on that duty. That makes it easier to win the acceptance of quite a few of the people," he said.

Once the trust barrier is breached, other obstacles to treatment may remain. Patients often don't show up for appointments or don't follow through on treatment. The hazards of life on the street frequently take a toll: patients' medications may be stolen; they may have to skip town to escape an abusive relationship; circumstances can prevent them from following a doctor's orders. Acting on a physician's advice to get plenty of bed rest, for example, may be impossible for a homeless person with nowhere to sleep.

"If I'm treating somebody for a medical problem, I can't just assume they can easily get the medications they might need," said Joanne Mellema. "I have to find out if they can read for one thing, if they have any assistance to get medications, or if there's even a refrigerator to keep medications cold, if it's a suspension that needs to be refrigerated."

In such cases, teamwork pays off. The mobile health care squads help patients secure some basic life necessities. Rumsey says visiting the shelters by himself would be pointless; without social and economic assistance workers to back him up, little could be accomplished.

"The need for health care for homeless people, as overwhelming as it may be, is just one dimension of the whole problem," says Rumsey. "I always say we doctors have the easiest job. We diagnose and prescribe, but that's nothing. How are they going to get their medicine? Are they going to take it? Where do they live?"

Non-medical staff on the health care teams offer concrete support for some of the toughest problems.

Family physician Dana Bryan examines a patient in a back room at St. Paul's Dorothy Day center. On a typical evening shift, Bryan sees 20 to 40 homeless patients.

"The housing issues and the long-term chemical dependency and mental illness problems are the big ones," Rumsey said. "Someone may initially come in to see the doctor for a cut on their finger. But then, all of a sudden, they've got options to see the social worker and the housing worker. It's a true team effort."

The physicians and nurses in the program practice in a style different from that applied in the private office. Adaptation can be the key to avoiding frustration. "You can't be too rigid and expect people will do what you tell them, or that you'll have everything you need at your fingertips and somebody to help you," Dana Bryan said. "You can't work with the same hustle and bustle you're used to in other medical settings." The doctors tend to work more slowly and spend more time talking and reassuring patients. Better clinical skills are required since fewer lab tests are possible, she added.

On an average evening shift, Bryan sees anywhere from 20 to 40 patients at Dorothy Day or the Union Gospel Mission. Many of the illnesses she treats are also common in her private practice: upper respiratory infections, pneumonia, and gastrointestinal problems, particularly those caused by alcohol use.

Bryan, along with other doctors and nurses, also treats conditions caused by the lack of hygiene common among homeless people, skin disorders or trench foot, for example. One reason homeless people often have foot problems, Bryan explained, is that they keep their shoes on all the time for fear they'll be stolen.

Bruises from life on the street are also commonly treated, Bryan said. "People get beat up quite regularly."

"The need for health care for homeless people, as overwhelming as it may be, is just one dimension of the whole problem."

Homelessness itself can exacerbate an illness. Constant exposure to the environment weakens the immune system, Oberg explained. "The physical stress of being homeless really adds an extra burden to a person coping with acute illness. In addition, you have the problem of communicable spread. In the shelters, there's an increased incidence of acute, infectious-type disease." Hypertension, diabetes, and tuberculosis also appear more frequently among the homeless, he said.

Doctors in both county programs refer homeless patients to specialists at the appropriate county hospital, as needed. Transportation is provided to improve the chances patients will make their appointments. "In the past, many have entered the health care system through the emergency room, urgent care, or crisis intervention. We're trying to direct people away from those episodic, acute, very expensive types of care to more appropriate sites," Oberg said.

Catching an acute condition before long-lasting complications develop is one of the main personal satisfactions for Bryan. "Very often I'm able to intervene at a time when it's important for them to get that necessary care. If they don't get it then, they're liable to get a lot sicker," she said.

Still, there's a limit to how much doctors can contribute to the long-term health and well-being of the homeless, or anyone else, says Chris Reif, medical director of Ramsey's program. Ultimately, maintaining one's health demands individual initiative. "You can give people shots and pills, but you can't give them health. So the act of being healthy is itself empowering. It means paying attention to what you eat, how you sleep, where stress is coming from, how you handle that stress, exercise, and the quality of human relationships," he said.

Doctors who work with the homeless are both optimists and realists. Even as they treat those suffering homelessness, they know that eliminating the problem requires much stronger medicine than they alone can prescribe. Chris Reif and his colleagues in both counties believe that what's good for the patient is the best social policy, too. "The main thrust of public health, as I think it is in good clinical medicine, should be prevention," Reif said. "So then the question becomes not how do you cure homelessness, but how do you prevent it?"

Who Are the Twin Cities' Homeless?

Peter J. Kizilos

Who are the homeless? The doctors who care for them say it's difficult to make any accurate generalizations since the group is so diverse. Some say about the only thing people in this group have in common is the lack of a roof over their heads.

No one is completely immune from becoming homeless, either, says Charles Oberg, M.D., medical director of the Hennepin County Homeless Assistance Project. "Given the right circumstances, a twist of fate, many people are only a few steps away from the same thing," he said. The loss of a job, or some other financial catastrophe, leaves some individuals, and whole families, homeless.

Estimating the size of the Twin Cities' homeless population isn't easy, because the group is so transient. According to Pat Leary, a board member of the Minnesota Coalition for the Homeless, the Metropolitan Council estimated in 1986 that 35,000 to 53,000 people were homeless in the metro area over a year-long period. Better figures on the homeless may be available soon, however. In 1990, the U.S. Census Bureau plans to pull out all the stops to tally their numbers in the Twin Cities metro area. The federal agency will enlist volunteers familiar with homeless hideouts to count those living under bridges, in bus depots, and abandoned buildings.

They'll also count those living in shelters served by the homeless health care teams in Hennepin and Ramsey counties. In Minneapolis, there are 14 such sites, including: Loaves and Fishes; Caring and Sharing Hands; Pursuit; 410, Inc.; People Serving People; Harbor Lights; Mother Cabrini Haus; Branches I, II, III; Project Offstreets; and Our Savior's, St. Stephen's, and Simpson's churches. St. Paul sites such as the Salvation Army Lodge, Casa De Esperanza, Theresa Living Center, Dorothy Day, and Union Gospel Mission will also be surveyed.

The path leading people to these community havens can be a troubled and tortuous one. The lives of homeless people have usually unravelled over many years, even decades, according to research findings summarized in a report by St. Paul family physician Tim Rumsey and Elaine Saline, director of the Ramsey County Health Services for the Homeless. They found the problems that land a person on the street frequently originate in dysfunctional families. Many of the homeless were physically or emotionally abused by parents or siblings. Others are chronic alcoholics. Another large group, about 25 to 38 percent, suffer chronic mental illness.

Women and children, especially, are now swelling the ranks of the homeless. Many women are fleeing abusive relationships. Nearly 60 percent of those in emergency shelters were sexually abused in childhood. Yet, assuming they get help, their prognosis is good, says Oberg. Because they are frequently the victims of someone else's pathology, they often have the emotional wherewithal to get their lives back on track.

Peter Kizilos is a Minneapolis free-lance writer.

PHOTO BY TIM RUMSEY, M.D.

One Step Away from the Street

Peter lived in an abandoned streetcar tunnel in St. Paul. I saw him walking there one October afternoon. His hair was long and ratty. His clothes were filthy. He held his hands in at his chest like a kangaroo. I'd see him in the Dorothy Day lobby every time our homeless health care team set up shop. He sat far from the nurses' table, never making eye contact with anyone. I passed him on the street one day, greeting him by name. He looked at the ground and laughed as he walked by. I even went to his tunnel once and eased myself behind the chickenwire barrier into the dark and filth of what appeared to be a huge sewer. No one was home. It smelled of urine, feces, and garbage. Every footstep echoed. I spent 10 minutes there. I couldn't imagine anyone spending an evening.

St. Paul's homeless health care team sees more than 100 clients a week at five different shelters (see related story, page 332). Sometimes we see the benefits of our work—the diabetic who needs his insulin refilled or the seizure patient who lost her dilantin. Certainly, we have kept some of these folks out of emergency rooms. But often, we are confused. We are angered by the drug seekers and frustrated by the chronic alcoholics who can't change. We are appalled by the number of mothers and babies living in shelters. And always, we are dismayed by the increasing volume of people needing our services.

I have worked as part of the homeless health care team for three and one-half years and can now say that the physician's job is the easiest of all. I simply diagnose and prescribe. The real work of finding solutions lies with the social workers, housing workers, mental health team, and shelter personnel. I prescribe a medicine, but they find out how these people are going to get it. None of us knows if the patients will ever take it. I once told a homeless client to soak his foot every day. The following week I learned he had been soaking it in a city park fountain. He lived on the street. It didn't occur to me that he wouldn't be able to follow my simple instruction. What good

Reflections on Caring for the Homeless

Tim Rumsey, M.D., with Rosemarie Reger-Rumsey, R.N.

PHOTO BY ROB LEVINE

Family physician Tim Rumsey talks with a patient in a back room at the Dorothy Day center in St. Paul.

is a decongestant if someone sleeps out in the rain? How cavalier to suggest that someone stop drinking when this has been a way of life for three decades.

One day, I noticed Peter's name on our patient list. The tunnel-man had been circling the area where the nurses and social workers sat in the lobby of Dorothy Day. Eventually, he took a chair 10 feet away from them. I was excited about the prospect of seeing him, doctor to patient, in our little back exam room. I had a lot to ask him. Mostly about living in a tunnel.

When I finally saw Peter, he was cleaner. His hair was cut. He had moved into the shelter. The social workers and Dorothy Day people were filing applications for medical assistance and social security disability. Peter and I had a 15-minute conversation. It made absolutely no sense, his answers blatantly schizophrenic and hallucinogenic, although probably no more so than my questions. I ended our first interview with a wide grin. I shook his hand and slapped him on the back. He didn't respond or look at me. But he did nod, yes, when I asked if he would see our psychiatrist. Later, with the help of mental health outreach workers, he saw the psychiatrist. He even took his medications.

> **"What good is a decongestant if someone sleeps out in the rain?"**

There have been some recent setbacks in Peter's life. He was denied social security disability. He started to look unkempt, his hair growing longer and rattier. He went off his medications. I heard he was sleeping outside again, maybe even in the tunnel. But last week, Peter came to us and asked for help.

Peter may never live in his own home or have a 9-to-5 job. He probably will spend more taxes than he will ever pay. But maybe he will live in a board and care home for the mentally ill. Maybe he will see his psychiatrist and take his medications regularly. And just maybe, because of the efforts of many caring people and agencies in a supportive community, Peter will not disappear in an abandoned streetcar tunnel.

To fight homelessness in 1989 can easily be taken for an impossible task, for to fight homelessness is to fight chemical dependency, mental illness, family violence, and poverty. Peter is a reminder what a kind word, a respectful confrontation, and showing up on a regular basis can do. Even though he is still one step away from the street, he trusts us. He knows he can come to the shelter system and the health care team.

Peter says hello now, although I have to speak first. But his hello is fuel enough for me to keep at it.

Tim Rumsey is a St. Paul family physician and member of Ramsey County's mobile health care team, Health Services for the Homeless.

Rosemarie Reger-Rumsey is a registered nurse and writer.

Renal Perfusionist
Receptionist
Lithotripsy Radiologic Technologist
Renal Transplant Coordinator
Medical Director *Transplantation Program*
Renal Social Worker
Registered Nurse *Renal Special Care Unit*
Prog Dire
Registered Nurse *Dialysis Unit*
Nurse Practitioner
Medical Director *Research Nephrology*
Community Nephrologist
Renal Dietitian
Medical Director *Home Dialysis*
Registered Nurse *Renal Transplant Surgery*
Ser Secr
Supervisor *Outpatient Dialysis Center*
Community Nephrologist
Registered Nurse *Renal Special Care Unit*
Medical Director *Outpatient Dialysis Center*
Transplant Surgeon
Occupational Therapist
Vascular Access Technician
D En
Patient Service Coordinator
Registered Nurse *Transplant Clinic*
Supervisor *Financial Resource Services*
Community Nephrologist
Chief of Nephrology
Medical Technologist *Chemistry Lab*
Chief Dialysis Technician
Exe Dir

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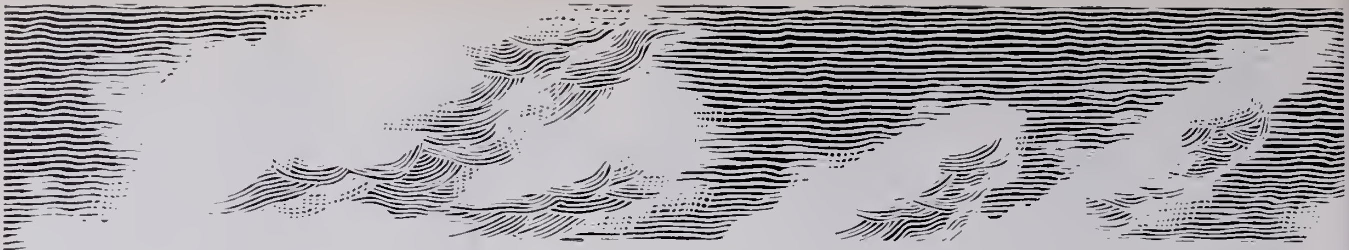
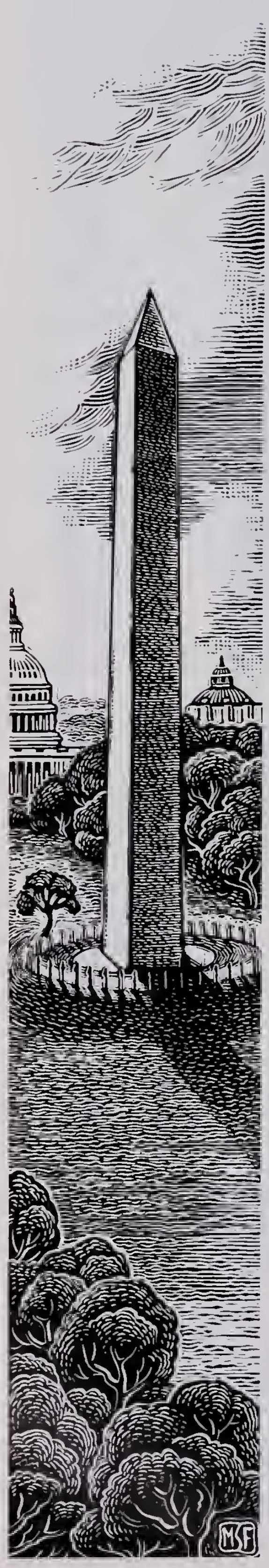
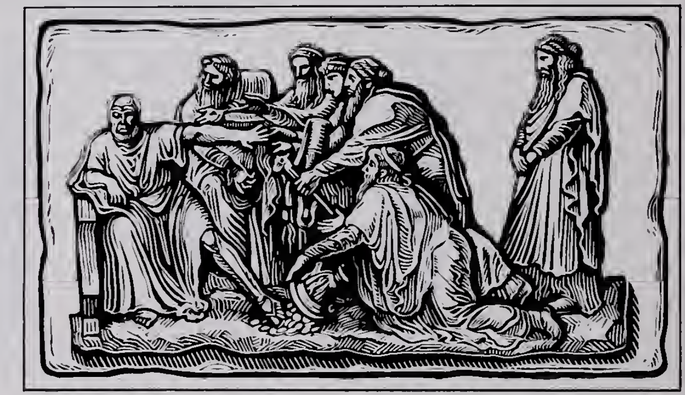




OVER A CENTURY AGO,

a thousand visionary physicians across the nation bestowed a commemorative stone carving to the Washington Monument. This patriotic display symbolized their unrelenting devotion to a new republic founded on freedoms—including the freedom to practice medicine for the best possible health of all its people. *Today your help is needed to restore this symbol of our profession.*



Because the commemorative stone has suffered from severe erosion and defacement, the American Medical Association is launching a campaign to raise money from physicians to restore this symbol of medicine for the National Park Service. Every contribution made to this effort will serve as a statement of each physician's personal affirmation and commitment to health and medicine in America.

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The Comprehensive Management of Patients with Angina Pectoris

Robert A. Van Tassel, M.D.; Charles R. Jorgensen, M.D.; and Irvin F. Goldenberg, M.D.

Coronary artery disease is the leading cause of death and disability in the United States. Each year, more than 1.5 million Americans experience an acute myocardial infarction, resulting in over 500,000 deaths. The estimated cost to society of cardiovascular disease exceeds $80 billion per year. The frequency with which physicians face this problem and the staggering economic cost to society necessitate a clear and concise approach to the diagnosis and treatment of this common disease.

Dr. William Heberden described the clinical presentation of coronary insufficiency more than 200 years ago and coined the term "angina pectoris."[1] Further recognition of the syndrome a century and a half later by Dr. J. B. Herrick clarified the need to categorize the syndrome of ischemic heart disease in order to provide more specific treatment.[2] It was only in the last part of the 20th century, however, that specific treatment became available. The key to appropriate and effective therapy for the individual patient lies in classifying patients with coronary artery disease into clinical subsets and then using the most efficacious treatments available for each subset. This report outlines a practical approach to recognizing patients with coronary artery disease, appropriately categorizing this large population of patients, and finally, selecting an effective therapeutic program for each patient.

Diagnosis of Coronary Artery Disease

Patients with coronary artery disease usually present with angina pectoris, acute myocardial infarction, or sudden death. Ischemic heart disease may, however, manifest itself as cardiac arrhythmias, congestive heart failure, or asymptomatic myocardial ischemia.

Angina Pectoris: The diagnosis of angina pectoris is made primarily on the basis of the patient's history. The patient's description of the classic syndrome first described by Heberden[1] is the best noninvasive evidence available to establish the diagnosis. The pain is often described as crushing, heavy, constricting, suffocating, tight, aching, squeezing, gnawing, burning, or pressure-like. It is rarely described as knife-like or superficial. The pain is usually substernal and commonly radiates to the neck, lower jaw, lower teeth, shoulders, and/or into one or both arms. It often extends to the medial aspect of the left forearm. It frequently occurs postprandially and with exertion, stress, and cold, and it usually lasts between two and ten minutes. Patients with angina pectoris nearly always feel the need to rest during the episode.

Unstable Angina Pectoris: Unstable angina pectoris is a clinical syndrome characterized by one or more of the following: 1) a crescendo pattern of angina with attacks increasing in frequency, severity, and/or duration; 2) angina of recent onset; 3) angina at rest or with minimal exertion. Patients with unstable angina pectoris have a much higher risk of experiencing an unfavorable cardiac event than those with chronic stable angina pectoris, and thus, require identification and more aggressive treatment.

Nocturnal Angina Pectoris: Patients with nocturnal angina awaken at night from a deep sleep with chest pain typical of angina pectoris. Nocturnal angina is more likely to occur with rapid eye movement sleep and dreaming. It is frequently associated with severe, advanced atherosclerotic disease and some degree of left ventricular dysfunction. This condition also portrays a poorer prognosis than is seen in patients with chronic stable angina pectoris, and thus, also merits a more aggressive approach to treatment.

Prinzmetal's (Variant) Angina Pectoris: Prinzmetal's angina pectoris is a syndrome of angina pectoris that characteristically occurs at rest rather than with exertion and is accompanied by electrocardiographic changes of ST-segment elevation and frequently by cardiac dysrhythmias.[3] Episodes of variant angina tend to occur most frequently in the early hours of the morning (often during sleep) but may occur at any time of day and occasionally may be precipitated by exertion.[4] Variant angina has been demonstrated to be due to coronary artery spasm either in the presence of normal coronary arteries or with underlying, significant coronary artery atherosclerotic disease.[5] While many patients have normal coronary arteries on coronary arteriography (i.e., no evidence of atherosclerotic lesions), more than half of such patients demonstrate severe proximal coronary atherosclerosis of at least one major vessel.

Angina Equivalent: Angina equivalent is characterized by symptoms of dyspnea, chronic fatigue, episodic exhaustion, belching, faintness, or cardiac dysrhythmias, which are felt to be secondary to myocardial ischemia. This syndrome also may be diagnosed in patients who experience exertional pain other than chest pain, such as isolated elbow or epigastric pain. These symptoms also reflect significant coronary artery disease and must be treated with the same intensity as symptoms of classic angina pectoris.

Silent Myocardial Ischemia: Silent myocardial ischemia is seen in two types of patients. The first type is one who has underlying, significant coronary artery disease, but who does not experience angina pectoris or angina equivalent. Ischemia in these patients may be identified by a treadmill exercise test or by ambulatory electrocardiographic monitoring. The second type of patient is one with symptomatic coronary artery disease with episodes of angina pectoris, but who, in addition, shows evidence of silent myocardial ischemia detected either by ambulatory electrocardiographic monitoring or stress electrocardiography.

Differential Diagnosis: When interviewing a patient with suspected coronary artery disease, it is important to determine the location, radiation, frequency, duration, quality, and severity of the chest discomfort. The physician should determine when the discomfort first occurred, whether the pain is increasing or decreasing, what are the precipitating factors and associated symptoms, what aggravates or alleviates the pain, and how does it respond to nitroglycerin. Indeed, it is important to inquire not only about chest pain, but any type of chest discomfort, since many patients will volunteer that their symptom is not painful, or they will give a negative history when asked only about pain. By taking a careful history, the physician usually is able to separate most cases of angina pectoris from other causes of episodic chest pain. Disorders to consider in the differential diagnosis with angina pectoris include esophageal reflux, esophageal spasm, biliary disease, peptic ulcer disease, cervical disc disease, hyperventilation, musculoskeletal disease, pericarditis, and thoracic outlet syndrome.

TABLE 1
Coronary artery disease risk factors

Major Risk Factors	Minor Risk Factors
Hypertension	Obesity
Hypercholesterolemia	Sedentary lifestyle
Cigarette smoking	Type-A personality
Diabetes mellitus	Stress
Family history	

Risk Factors: Risk factors (Table 1) are important in the development of coronary artery disease, and their predictive value in assessing patients cannot be overemphasized. Major risk factors include hypercholesterolemia, hypertension, smoking, diabetes, and a family history of premature coronary artery disease. Minor risk factors include obesity, sedentary lifestyle, type-A personality, and stress. It is of paramount importance for the physician to identify risk factors in each patient and modify these factors by appropriate intervention when possible.

Physical Examination: The physical examination for diagnosing coronary artery disease is of limited usefulness. The findings are inconsistent, nonspecific, easily missed, and only of minor help in the overall diagnosis of the disease. Physical findings that may be seen in patients with coronary artery disease include elevated blood pressure, xanthelasma, arcus senilis, a third or fourth heart sound, earlobe creases, an apical systolic murmur, carotid or peripheral bruits, and a paradoxically split second heart sound. The physical examination, however, does allow one to identify conditions other than coronary disease that may cause ischemic chest pain, such as congenital heart disease, valvular heart disease, and hypertrophic cardiomyopathy.

Laboratory Examination: General laboratory studies, including complete blood count, urinalysis, chest X-ray, and electrocardiogram frequently are of only limited usefulness in the diagnosis of coronary disease. The resting electrocardiogram is normal in up to 50% of patients with chronic stable angina pectoris, and therefore, a normal electrocardiogram does not exclude severe, underlying coronary disease. The frequency of a normal electrocardiogram in any given series of patients depends upon the group's prior incidence of myocardial infarction. The most common abnormalities seen on the electrocardiogram include nonspecific ST and T wave changes. Other electrocardiographic changes associated with coronary disease include left bundle branch block, anterior fascicular block, and premature ventricular contractions.

The electrocardiogram can be made more sensitive and specific with the use of exercise. The exercise electrocardiogram, using the Bruce protocol, has a sensitivity of 60% to 70%, and a specificity of approximately 80% to 90%.[6-8] A positive electrocardiographic response is a flat or downsloping ST-segment depression of 1 mm or greater in any lead reflecting subendocardial ischemia. ST-segment elevation of 1 mm or more usually predicts critical narrowing of a major coronary artery, reflecting transmural ischemia. The heart's need for oxygen and, thus, blood flow, is not necessarily proportional to the exercise load, but rather to the simple product of heart rate and systolic blood pressure with the relationship of cardiac load to the load on the skeletal muscle, varying widely with such factors as state of physical conditioning, drug therapy, and chronotropic inadequacy due to coronary disease itself.[9] Significant ST-segment depression at low rate-pressure products or low workloads (< 4 mets) is usually associated with a greater frequency of cardiac events when compared with patients who develop these changes at higher workloads (8 to 9 mets). Exercise-induced hypotension is also an independent predictor of significant coronary artery disease, as is a strongly positive exercise test, defined as 2 mm or more ST-segment depression. Thus, the exercise electrocardiogram is not only helpful in diagnosing coronary artery disease, but also in estimating its severity.

The intravenous injection of thallium 201 radioisotope at the time of symptom-limited exercise with subsequent myocardial imaging increases the sensitivity and specificity of the exercise test even further.[6,10] Thallium perfusion studies, although expensive, are very useful in patients with significant baseline abnormalities on their resting electrocardiogram or when localization of the ischemic area of the left ventricle would be helpful. An exercise radionuclide angiogram (MUGA) is also helpful in diagnosing coronary artery disease in selected patients.[6,11] Recently, echocardiography has been shown to be highly sensitive and specific in diagnosing coronary disease when used in conjunction with exercise electrocardiography.[12] The ambulatory electrocardiogram with monitoring of ST-segment variations noted during the patient's normal lifestyle is frequently helpful, not only in establishing a diagnosis of angina pectoris, but also in identifying periods of silent myocardial ischemia.[13,14]

Coronary arteriography was introduced by Sones in the mid-1950s,[15] and since that time, the quality of the technique has improved significantly, and the risks have vastly diminished. A high-quality coronary arteriogram is the definitive study for the diagnosis of coronary artery disease and should be diagnostic in all but a small minority of cases. In experienced hands, both the morbidity rate (2% to 3%) and mortality rate (less than 0.1%) of coronary arteriography are low.

Treatment Guidelines

Figure 1 is a schematic representation of an approach to divide patients with coronary artery disease into workable subsets. This classification is not meant to be inflexible, and considerable variations should be anticipated. The majority of patients with coronary artery disease are candidates for medical management, with intervention by percutaneous transluminal coronary angioplasty or coronary artery bypass surgery being reserved for appropriate subsets.

Medical Management

Cardiovascular risk factors should be altered, when appropriate, in patients with coronary artery disease. This includes appropriate management of hypertension, comprehensive management of diabetes mellitus, instruction on a low-cholesterol diet, and abstention from smoking. Weight loss should be encouraged if needed. Many of these risk-factor changes can be accomplished merely by modifying personal habits. In some cases, it is necessary to add medications, as in diabetes and hypertension not responding to diet and weight reduction, and in some patients with a persistently elevated serum cholesterol after a trial of a cholesterol-lowering diet. The physician must carefully identify and treat abnormalities that may increase myocardial ischemia, such as cardiac dysrhythmias, and associated diseases that may aggravate coronary artery disease, such as thyrotoxicosis, anemia, and pulmonary insufficiency.

Regular exercise is helpful in patients with chronic stable angina pectoris. The conditioning effects of exercise allow one to achieve greater exercise tolerance by decreasing the heart rate and blood pressure, and thus, myocardial oxygen demand, at any given level of exercise.[9,16-18] The patient with chronic stable angina should avoid extreme fatigue and exhaustion, however.

After these general measures have been initiated, the physician may consider the therapeutic use of various antianginal medications. Angina pectoris occurs when myocardial oxygen demand exceeds the myocardial oxygen supply. All antianginal medications attempt to increase myocardial blood supply and/or decrease myocardial oxygen demand. Effective treatment depends, in large part, on the capability of these medications to lower myocardial oxygen demand (estimated by rate-pressure product) or increase myocardial blood flow. A number of medications are available, including beta blockers, nitrates, and calcium channel blockers.

Nitrates: The nitrates are the oldest and most often prescribed medications for patients with symptomatic coronary artery disease. Table 2 outlines the characteristics of the commonly used nitrates. Nitrates produce their therapeutic effects by reducing both the preload and afterload of the heart and by causing vasodilatation of the coronary arteries.[19-21] These effects reduce myocardial oxygen demand because of a decrease in myocardial wall stress. Nitrates also appear to increase myocardial blood flow to the ischemic area in some patients.[22,23] Nitrates may be administered in a variety of forms such as sublingual nitroglycerin tablets, nitro aerosols, transcutaneous skin delivery patches, and long-acting sublingual and oral preparations. In patients with chronic stable angina pectoris, sublingual nitroglycerin, either with tablets or spray, remains the medication of choice for treatment of the acute episode. Sublingual nitroglycerin is also useful when taken prophylactically prior to activities known to produce angina pectoris. With continuous use of long-acting nitrates, patients may develop nitro tolerance, which may be alleviated by a nitrate-free interval each day.[24-26] This may be accomplished by omitting the bedtime dose of an

TABLE 2
Commonly used nitrate preparations

Drug	Route of administration	Dosage	Onset of effect (min)	Duration of action	Schedule
NTG	sublingual	0.3-0.6 mg	1-2	15-30 min	PRN
NTG aerosol	oral mucosal membrane	0.4 mg	1-2	15-30 min	PRN
NTG SR	oral	2.5-9 mg	30-60	2-8 hrs	q8-12 hrs
NTG ointment	transdermal	½-2 inches	15-60	3-8 hrs	q4-6 hrs
NTG patches	transdermal	2.5-15 mg	30-60	24 hrs	q24 hrs
ISDN	sublingual	2.5-10 mg	3-5	1-2 hrs	q3-4 hrs
ISDN	oral	10-60 mg	15-30	3-6 hrs	q6-12 hrs
ISDN SR	oral	40-80 mg	30-60	6-12 hrs	q8-12 hrs

NTG = nitroglycerin; SR = sustained release; ISDN = isosorbide dinitrate.

oral or sublingual preparation or by removing the transdermal patch for several hours each day. Alternatively, in patients with nocturnal angina, one may wish to use the nitrate at bedtime and plan a nitrate-free interval at some other point during the day. In certain patients, the physician may find it necessary to add or increase antianginal medications, such as calcium channel blockers, during this nitrate-free interval.

Intravenous nitroglycerin is the delivery system of choice for patients admitted to the coronary care unit with unstable angina. With all nitrates, it is prudent to start with low doses and slowly increase them over a period of time to prevent the adverse effects of headache, hypotension, flushing, and reflex tachycardia. The concomitant use of a beta blocker will blunt the reflex tachycardia experienced by patients receiving nitrates.

Beta Blockers: Beta blockers have been used for over two decades to alleviate symptoms in patients with coronary artery disease.[27] They can be classified by their pharmacological properties (Table 3). Relative cardioselectivity is one form of classification. *Nonselective* beta blockers, such as propranolol, timolol, pindolol, and nadolol, block both the beta-1 and beta-2 receptors. *Cardioselective* beta blockers, such as atenolol, metoprolol, and acebutolol, produce predominantly beta-1 blockade with fewer effects on beta-2 receptors. These cardioselective beta blockers produce the majority of their effects on the heart, but at higher doses, the cardioselective beta agents also produce significant beta-2 blockade. Some beta blockers exhibit intrinsic sympathomimetic activity,[28-30] producing low-grade beta stimulation when sympathetic activity is low (rest), and providing beta blockade once the sympathetic activity is high (exercise). Beta blockers with intrinsic sympathomimetic activity, such as pindolol and acebutolol, are less prone to cause sinus bradycardia and have some theoretical advantage when used in patients with peripheral vascular disease.

Lipid solubility is another important pharmacological characteristic of certain beta blockers. Lipid-soluble beta blockers are more readily absorbed by the gastrointestinal tract, have shorter half-lives, and cross the blood-brain barrier more easily than the water-soluble beta blockers. Studies suggest that water-soluble beta blockers cause fewer central nervous system side effects, such as nightmares and hallucinations.[31-33] Propranolol, metoprolol, and pindolol are all examples of lipid-soluble beta blockers; atenolol and nadolol are

TABLE 3
Commonly used beta blockers

Relative agent	Cardiac selectivity	Lipid solubility	ISA	Dosage (mg)	Dosage schedule
Acebutolol	+	Low	+	200-600	q12-24 hrs
Atenolol	+ +	Low	0	50-100	q24 hrs
Esmolol	+ +		0		
Metoprolol	+ +	High	0	25-100	q12 hrs
Nadolol	0	Low	0	40-80	q24 hrs
Pindolol	0	Moderate	+ +	5-20	q8-12 hrs
Propranolol	0	High	0	10-120	q6 hrs
Propranolol LA	0	High	0	80-160	q24 hrs
Timolol	0	Low	0	10-30	q12 hrs

ISA = intrinsic sympathomimetic activity; LA = long-acting.

examples of water-soluble beta blockers.

Favorable cardiovascular effects from beta blockers include a decrease in heart rate, a decrease in systemic blood pressure, and a decrease in contractility of the left ventricle. Beta blockers reduce anginal frequency by decreasing myocardial oxygen demand due to surges of sympathetic activity that occur with excitement and exercise. Unfortunately, the decrease in contractility caused by beta blockers may lead to congestive heart failure, and they must be used cautiously in patients with poor left ventricular function. Although beta blockers are generally well tolerated, their use is contraindicated in patients with bronchospastic asthma, severe peripheral vascular disease, symptomatic bradycardia, and heart block. Beta blockers are associated with a significant number of side effects, the most common of which is fatigue and lethargy. Other important side effects include diarrhea, intensification of insulin-induced hypoglycemia, and impotence.

Selection of a specific beta blocker for the individual patient depends on the presence of associated medical problems. The specific beta blocker should be chosen for characteristics most appropriate for that patient. The beta-1 selective agent Atenolol (Tenormin) has a long half-life and tends not to cross the blood-brain barrier, and thus, is an excellent choice for the initial beta blocker in many patients.

Calcium Channel Blockers: Calcium antagonists, an entirely new group of antianginal medications, were introduced in the United States in the 1980s. Calcium channel blockers inhibit the transmembrane flow of calcium into the cardiac and smooth muscle cells, producing coronary and peripheral vasodilatation.[34,35] They cause systemic and coronary arterial dilatation, a decrease in systemic blood pressure, inhibition of coronary artery spasm, and a decrease in coronary artery resistance. In addition to being effective in patients with angina due to large-vessel atherosclerotic disease, these agents are useful in treating coronary artery spasm (Prinzmetal's angina).[36,37] Available calcium channel blockers include diltiazem, verapamil, nifedipine, and nicardipine. The pharmacology of each of these agents differs slightly, and the physician may use these differences in selecting the calicum channel blocker most appropriate for individual patients. Table 4 outlines the properties of these agents.

Calcium channel blockers are quite well tolerated by most patients, although they all possess some negative inotropic properties, and in certain patients, may aggravate congestive heart failure.[38-42] Earlier reports suggested these agents may be used safely in some patients with left ventricular dysfunction; however, more recent data suggest these medications may actually increase mortality in this subgroup.[43] All calcium channel blockers are capable of producing clinical deterioration and heart failure in patients with severe left ventricular dysfunction. This is especially true in patients who are also taking beta blockers.[38] Verapamil has the most negative inotropic characteristics of the calcium channel blockers available, and thus, is contraindicated in the vast majority of patients with depressed left ventricular dysfunction. Verapamil, and to a lesser degree, diltiazem, alters the rate of AV-nodal conduction, causing increased block at the AV node. This characteristic makes verapamil useful in patients with certain atrial dysrhythmias, but, along with diltiazem, it may aggravate certain underlying conduction disturbances in people with AV-nodal disease. Both verapamil and diltiazem have varying effects on the SA node and may cause sinus bradycardia.

Nifedipine possesses the most potent vasodilatory effects of the calcium channel blockers available and has the least effect on the SA and AV nodes. The rapid absorption of nifedipine from the gastrointestinal tract, however, may produce significant hypotension and reflex tachycardia, particularly in the aged, and may aggravate angina pectoris. Occasionally, patients using nifedipine or diltiazem will develop peripheral edema unrelated to heart failure. The new sustained release form of nifedipine promises to minimize the side-effect profile of this drug without decreasing its efficacy.

Diltiazem appears to be the best tolerated of the calcium channel blockers,[44] although its overall effectiveness in relieving angina pectoris is not superior to the other agents.

One must be cautious when using combinations of antianginal medications because their effects may be additive.[38] For instance, verapamil should be avoided in patients on beta blockers because of the added deleterious effect on left ventricular function and AV conduction.

Likewise, one must be cautious when adding nifedipine to patients already on nitrates because the potent vasodilatory effects of these

TABLE 4
Calcium channel blockers

Agent	Vasodilatation	Depression of AV conduction	Dose (mg)	Dose schedule
Nifedipine	+ + +	0	10-40	q6-8 hrs
Diltiazem	+	+ +	30-120	q6-8 hrs
Verapamil	+ +	+ + +	80-120	q6-8 hrs
Nicardipine	+ + +	0	20-40	q6-8 hrs

0 = no effect; + = slight effect; + + = moderate effect; + + + = marked effect.

agents may result in significant hypotension. However, because the nitrates, calcium channel blockers, and beta blockers all have different physiologic actions, various combinations of these medications are frequently helpful in the management of patients with symptomatic coronary artery disease. The vast majority of patients can be effectively managed with one or a combination of these medications. The selection of the specific medication to be used initially depends on the baseline hemodynamics of the patient and his or her associated diseases.

Antiplatelet agents are usually recommended for all patients with known coronary artery disease and with no contraindication to their use. Aspirin, dipyridamole, and sulfinpyrazone have all been shown to be effective antiplatelet drugs and are given to prevent acute coronary thrombosis. Aspirin is the least expensive, most powerful, has the fewest side effects, and thus, is the drug of choice for the majority of patients. Low-dose aspirin has been shown to improve survival in patients with unstable angina pectoris[45] and most recently has been shown to decrease the incidence of acute myocardial infarction and sudden death in the adult male population.[46]

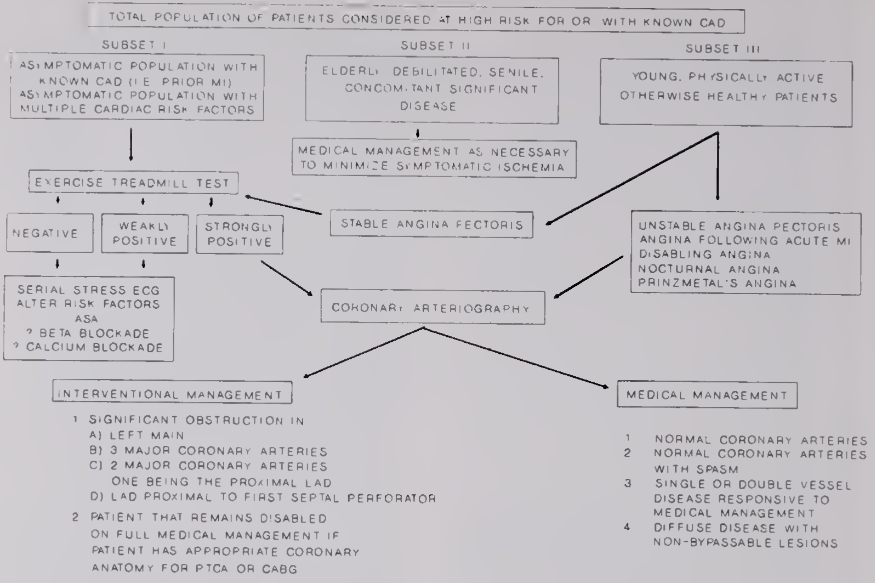
TOTAL POPULATION OF PATIENTS CONSIDERED AT HIGH RISK FOR OR WITH KNOWN CAD
SUBSET I
ASYMPTOMATIC POPULATION WITH KNOWN CAD (I E PRIOR MI)
ASYMPTOMATIC POPULATION WITH MULTIPLE CARDIAC RISK FACTORS
SUBSET II
ELDERLY DEBILITATED, SENILE, CONCOMITANT SIGNIFICANT DISEASE
SUBSET III
YOUNG, PHYSICALLY ACTIVE OTHERWISE HEALTHY PATIENTS
MEDICAL MANAGEMENT AS NECESSARY TO MINIMIZE SYMPTOMATIC ISCHEMIA
EXERCISE TREADMILL TEST
STABLE ANGINA PECTORIS
NEGATIVE
WEAKLY POSITIVE
STRONGLY POSITIVE
UNSTABLE ANGINA PECTORIS
ANGINA FOLLOWING ACUTE MI
DISABLING ANGINA
NOCTURNAL ANGINA
PRINZMETAL'S ANGINA
SERIAL STRESS ECG
ALTER RISK FACTORS
ASA
? BETA BLOCKADE
? CALCIUM BLOCKADE
CORONARY ARTERIOGRAPHY
INTERVENTIONAL MANAGEMENT
1 SIGNIFICANT OBSTRUCTION IN
A) LEFT MAIN
B) 3 MAJOR CORONARY ARTERIES
C) 2 MAJOR CORONARY ARTERIES ONE BEING THE PROXIMAL LAD
D) LAD PROXIMAL TO FIRST SEPTAL PERFORATOR
2 PATIENT THAT REMAINS DISABLED ON FULL MEDICAL MANAGEMENT IF PATIENT HAS APPROPRIATE CORONARY ANATOMY FOR PTCA OR CABG
MEDICAL MANAGEMENT
1 NORMAL CORONARY ARTERIES
2 NORMAL CORONARY ARTERIES WITH SPASM
3 SINGLE OR DOUBLE VESSEL DISEASE RESPONSIVE TO MEDICAL MANAGEMENT
4 DIFFUSE DISEASE WITH NON-BYPASSABLE LESIONS

FIGURE 1 — A schematic representation of an approach to divide patients with coronary artery disease into workable subsets: CAD = coronary artery disease; LAD = left anterior descending artery; PTCA = percutaneous transluminal coronary angioplasty; CABG = coronary artery bypass graft surgery; MI = myocardial infarction.

Patient Classification

Figure 1 outlines an approach to classifying patients with coronary artery disease. Subset I includes those patients with known coronary artery disease but who are asymptomatic, and those patients at high risk for the development of coronary artery disease. The exercise treadmill test with or without thallium is very helpful in managing this group of patients. In those patients with a negative stress electrocardiogram or with a mildly positive stress electrocardiogram, medical management should include risk-factor modifications and low-dose aspirin. Whether calcium channel blockers or beta blockers are indicated in this subset of asymptomatic patients is unknown at this time. Coronary arteriography is indicated in those patients in this subset who demonstrate a strongly positive stress electrocardiogram even in the absence of symptoms. Interventional or medical management should then be determined based on the patient's underlying coronary anatomy and function of the left ventricle.

Subset II includes those patients who, because of an associated disease or age, are significantly limited in their activity level. These patients should be treated medically with beta blockers, calcium channel blockers, or nitrates to minimize the number of ischemic episodes. Rarely are more aggressive diagnostic or therapeutic programs indicated in this group of patients.

Subset III includes those patients who are young, physically active, and otherwise healthy. In this group of patients with chronic stable angina pectoris, the treadmill once again can be used to help stratify these patients into those who will be treated medically and those who need to undergo coronary arteriography. Medical management is indicated if the stress electrocardiogram is negative or weakly positive. If the stress test is positive, these patients should undergo coronary arteriography. Coronary arteriography is indicated for all other patients in this subset. The function of the left ventricle and the underlying coronary anatomy will then dictate the appropriate selection of therapy, which would include medical management, myocardial revascularization, or coronary angioplasty.

Many patients with mild angina (one to two episodes per week) may be managed with sublingual nitroglycerin alone. When angina occurs daily, long-acting nitrates, beta blockers, and/or calcium channel blockers may be added. Each new agent should be started at a relatively low dose and gradually increased to tolerance or to relief of symptoms. Combination therapy with two or three agents is often helpful in managing patients refractory to a single agent and may also facilitate the use of a lower dose of a single agent, decreasing the overall side-effect profile. Because of the unfavorable status of patients with unstable angina, a much more vigorous therapeutic approach must be taken in this subgroup. These patients usually require hospitalization with initiation of therapy that frequently includes intravenous nitroglycerin, low-dose aspirin, and concomitant therapy with beta blockers or calcium channel blockers. Early angiography is indicated in a sizable number of patients with unstable angina once their condition has stabilized. Nitrates and calcium channel blockers are specifically indicated for those patients with rest pain and Prinzmetal's angina pectoris, as these patients are thought to have symptoms precipitated by coronary artery spasm with or without underlying coronary disease. Beta blockers may occasionally worsen this condition and generally are not indicated.

Although early pharmacological studies of patients with silent myocardial ischemia have revealed decreased episodes of silent ischemia with antianginal medications,[47] the long-term use of these medications in this subset of patients has not been determined. It seems reasonable, however, that decreasing episodes of silent myocardial ischemia may result in fewer episodes of acute myocardial infarction and sudden death.

Indications for Coronary Arteriography: Many patients who remain symptomatic on a maximal medical program or demonstrate a strongly positive stress electrocardiogram are candidates for coronary angiography. Indications for coronary arteriography vary somewhat, but most cardiologists would agree that coronary arteriography should be performed in the following groups of patients: 1) patients with angina pectoris uncontrolled with conventional therapy; 2) patients with unstable angina; 3) patients with angina pectoris following a transmural myocardial infarction; 4) patients who have received thrombolytic therapy for a myocardial infarction and now demonstrate evidence of recurrent myocardial ischemia; 5) patients with a non-Q wave myocardial infarction; 6) young, otherwise healthy patients with chronic stable angina; and 7) some patients with atypical chest pain, depending on the overall clinical situation. The patient's age, functional capacity, activity level, response to medical therapy, and coronary anatomy determine whether continued medical therapy, coronary angioplasty, or surgical myocardial revascularization should be considered.

Percutaneous Transluminal Coronary Angioplasty: Percutaneous transluminal coronary angioplasty, introduced by Dr. Andreas Gruentzig in 1978, is effective in eliminating angina pectoris in appropriate patients.[48-51] Patients with coronary anatomy suitable for coronary angioplasty include those with relatively discrete subtotal stenosis in major coronary arteries other than the left main coronary artery. In the past, heavy calcification, diffuse disease, or totally occluded vessels were considered contraindications to this procedure. However, because of recent technical advances, even these patients may, in selected cases, be subjected to angioplasty. Primary success is achieved in more than 90% of angioplasty cases; however, restenosis of the dilated lesion will occur in 20% to 30% of cases.[52] Surgical standby is required in all cases, as emergency surgery is necessary in 2% to 4% of such cases at nearly all large centers.

Myocardial Revascularization: Myocardial revascularization has been shown to prolong life in patients with significant obstruction of the left main coronary artery,[53,54] three-vessel coronary disease, and in two-vessel disease with involvement of the proximal segment of the left anterior descending coronary artery,[55-58] especially when there is objective evidence for myocardial ischemia on an exercise test at a low workload or when there is left ventricular dysfunction.

It has become clear over the past several years that the surgical procedure of choice is the anastomosis of the internal mammary artery to a stenosed coronary artery,[59] but when this is not possible, a reversed saphenous vein bypass graft is used as a conduit. The mortality rate for this procedure is 1% to 2%. The graft patency of the internal mammary artery at one year is greater than 95%; however, graft patency for the saphenous vein graft for this same period of time is approximately 80%.

Summary

The comprehensive approach to the patient with angina pectoris begins with a thorough history, physical examination, and noninvasive studies such as the exercise electrocardiogram. Classification of individual patients with coronary artery disease into clinical subsets is critical in allowing the physician to make rational choices of therapy. The medical, surgical, and angioplasty approaches to the disease are effective therapeutic modalities.

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References

1. Heberden W: Some account of a disorder of the breast. Med Trans R Coll Physicians (Lond) 2:59, 1786.

2. Herrick JB: Clinic features of sudden obstruction of the coronary arteries. JAMA 59:2015, 1912.

3. Prinzmetal M, Kennamer R, Merliss R, Wada T. Bor N: A variant form of angina pectoris. Am J Med 27:375, 1959.

4. Yasue H, Omote S, Takizawa A, Nagao M, Miwa K, Tanaka S: Cardiac variations of exercise-induced coronary arterial spasm. Circulation 59:938, 1979.

5. Oliva PB, Potts DE, Pluss RG: Coronary arterial spasm in Prinzmetal angina. Documentation by coronary arteriography. N Engl J Med 288:745, 1973.

Angina Pectoris References *continued*

Angina Pectoris References from page 351

6. Okada RD: In: Morganroth J, Parisi AF, Pohost GM, eds. Noninvasive cardiac imaging. Chicago: Year Book Medical Publishers, Inc., 132, 1983.

7. Amsterdam EA, Martschinske R, Laslett LJ, Rutledge JC, Vera Z: Symptomatic and silent myocardial ischemia during exercise testing in coronary artery disease. Am J Cardiol 58:438, 1986.

8. Hlatky AM, Pryor DB, Harrell FE, Califf RM, Mark DB, Rosati RA. Factors affecting sensitivity and specificity of exercise electrocardiography. Am J Med 77:64, 1984.

9. Jorgensen CR, Gobel FL, Taylor HL, Wang Y: Myocardial blood flow and oxygen consumption during exercise. Ann NY Acad Sci 301:213, 1977.

10. Dash H, Massie BM, Botvinick EH, et al.: The noninvasive identification of left main and three-vessel coronary artery disease by myocardial stress perfusion scintigraphy and treadmill exercise electrocardiography. Circulation 60:276, 1979.

11. Borer JS, Kent DM, Bacharach SL: Sensitivity, specificity, and predictive accuracy of radionuclide cineangiography during exercise in patients with coronary artery disease. Circulation 60:572, 1979.

12. Saner HE, Olson J, Daniel JA, Jorgensen CR, Homans DE, Lange HW, Cook AC, Gobel FL: Exercise two-dimensional echocardiography in patients with ischemic heart disease. J Cardiovas Ultrasound 6:193, 1987.

13. Stern S, Tzivioni D: Early detection of silent ischemic heart disease by 24-hour electrocardiographic monitoring of active subjects. Br Heart J 36:481, 1976.

14. Cecchi AC, Dovellini EV, Marchi F, Pucci P, Santoro GM, Fazzini PF: Silent myocardial ischemia during ambulatory electrocardiographic monitoring in patients with effort angina. J Am Coll Cardiol 1:934, 1983.

15. Sones FM, Shirey EK: Cine coronary arteriography. Mod Concepts Cardiovasc Dis 31:735, 1962.

16. Ferguson RJ, Taylor AW, Cote P, Charlebois J, Dinelle Y, Peronnet F, de Champlain J, Bourassa MG: Skeletal muscle and cardiac changes with training in patients with angina pectoris. Am J Physiol 243:H830, 1982.

17. Redwood DR, Rosing DR, Epstein SE: Circulatory and symptomatic effects of physical training in patients with coronary artery disease and angina pectoris. N Engl J Med 286:959, 1972.

18. Jensen D, Atwood JE, Froelicher V, McKirnan MD, Battler A, Ashburn W, Ross J Jr.: Improvement in ventricular function during exercise studied with radionuclide ventriculography after cardiac rehabilitation. Am J Cardiol 46:770, 1980.

19. Frishman WH: Pharmacology of the nitrates in angina pectoris. Am J Cardiol 56:81, 1985.

20. Williams JF Jr., Glick G, Braunwald E: Studies on cardiac dimensions in intact unanesthestized man. V. Effects of nitroglycerin. Circulation 32:76, 1965.

21. Brown BG, Bolson E, Petersen RB, Pierce CD, Dodge HT: The mechanisms of nitroglycerin action: stenosis vasodilatation as a major component of the drug response. Circulation 64:1089, 1981.

22. Cohn PF, Maddox DE, Holman BL, Markis JE, Adams DF, See JR: Effect of sublingually administered nitroglycerin on regional myocardial blood flow in patients with coronary artery disease. Am J Cardiol 39:672, 1977.

23. Goldstein RE, Stinson EB, Scherer JL, Seningen RP, Grehl TM, Epstein SE: Intraoperative coronary collateral function in patients with coronary occlusive disease. Nitroglycerin responsiveness and angiographic correlations. Circulation 49:298, 1974.

24. Abrams J: Tolerance to organic nitrates. Circulation 74:1181, 1986.

25. Luke R, Sharpe N, Coxon R: Transdermal nitroglycerin in angina pectoris: efficacy of intermittent application. J Am Coll Cardiol 10:642, 1987.

26. Parker JO, Farrell B. Lahey KA, Moe G: Effect of intervals between doses on the development of tolerance to isosorbide dinitrate. N Engl J. Med 316:1440, 1987.

27. Frishman WH, ed. Clinical Pharmacology of the Beta-Adrenoceptor Blocking Drugs. Norwalk: Appleton-Century-Crofts, 1984.

28. Frishman WH, Kostis J, Strom J, et al.: Clinical pharmacology of the new beta-adrenoceptor blocking drugs. Part 6. A comparison of pindolol and propranolol in treatment of patients with angina pectoris. The role of intrinsic sympathomimetic activity. Am Heart J 98:526, 1979.

29. Frishman WH: Pindolol: a new beta-adrenoceptor antagonist with partial agonist activity. N Engl J Med 308:940, 1983.

30. Quyyumi AA, Wright C, Mockus L, Fox KM: Effect of partial agonist activity in beta blockers in severe angina pectoris: a double-blind comparison of pindolol and atenolol. Br Med J 289:951, 1984.

31. Betts TA, Alford C: Beta blocking drugs and sleep. A controlled trial. Drugs 25(Suppl 2):268, 1983.

32. Greminger P, Vetter H, Boerlin HJ, Havelka J, Baumgart P, Walger P, Luscher T, Siegenthaler W, Vetter W: A comparative study between 100 mg atenolol and 20 mg pindolol slow-release in essential hypertension. Drugs 25(Suppl 2):37, 1983.

33. Westerlund A: Central nervous system side effects with hydrophilic and lipophilic beta blockers. Eur J Clin Pharmacol 28(Suppl 2):73, 1985.

34. Vaghy PL, Williams JS, Schwartz A: Receptor pharmacology of calcium entry blocking agents. Am J Cardiol 59:9A, 1987.

35. Godfraind T: Classification of calcium antagonists. Am J Cardiol 59:11B, 1987.

36. Schroeder JS, Beier-Scott L, Ginsburg R, Bristow MR, McAuley BJ: Efficacy of diltiazem for medically refractory stable angina. Long-term follow-up. Clin Cardiol 8:480, 1985.

37. Antman E, Muller J, Goldberg S, MacAlpin, Rubenfire R, Tabatznik M, Liang C, Heupler F, Achuff S, Reichek N, Geltman E, Kerin NZ, Neff RK, Braunwald E: Nifedipine therapy for coronary-artery spasm. Experience in 127 patients. N Engl J Med 302:12, 1980.

38. Packer M: Combined beta-adrenergic and calcium-entry blockade in angina pectoris. N Engl J Med 320:709, 1989.

39. Brooks N, Cattell M, Pidgeon J, Balcon R: Unpredictable response to nifedipine in severe cardiac failure. Br Med J 281:1324, 1980.

40. Packer M, Lee WH, Medina N, Yushak M: Comparative negative inotropic effects of nifedipine and diltiazem in patients with severe left ventricular dysfunction. Circulation 72(Suppl III):III-275 (abstract), 1985.

41. Nakaya H, Schwartz A, Millard RW: Reflex chronotropic and inotropic effects of calcium channel-blocking agents in conscious dogs: diltiazem verapamil, and nifedipine compared. Circ Res 52:302, 1983.

42. Urquhart J, Patterson RE, Bacharach SL, et al.: Comparative effects of verapamil, diltiazem, and nifedipine on hemodynamics and left ventricular function during acute myocardial ischemia in dogs. Circulation 69:382, 1984.

43. The Multicenter Diltiazem Postinfarction Trial Research Group. The effect of diltiazem on mortality and reinfarction after myocardial infarction. N Engl J Med 319:385, 1988.

44. Johnston DL, Lesoway R, Humen DP, Kostuk WJ: Clinical and hemodynamic evaluation of propranolol in combination with verapamil, nifedipine and diltiazem in exertional angina pectoris: a placebo-controlled double-blind, randomized cross-over study. Am J Cardiol 55:680, 1985.

45. Lewis HD, Davis JW, Archibald DG, Steinke WE, Smitherman TC, Doherty JE III, Schnaper HW, LeWinter MM, Linares E, Pouget JM, Sabharwal SC, Chesler E, DeMots H: Protective effects of aspirin against acute myocardial infarction and death in men with unstable angina. N Engl J Med 309:396, 1983.

46. The Steering Committee of the Physicians' Health Study Research Group. Preliminary report: findings from the aspirin component of the ongoing physicians' health study. N Engl J Med 318:262, 1988.

47. Stone PH: Calcium antagonists for Prinzmetal's variant angina, unstable angina and silent myocardial ischemia: therapeutic tool and probe for identification of pathophysiologic mechanisms. Am J Cardiol 59:101B, 1987.

48. Gruentzig AR, Senning A, Siegenthaler WE: Non-operative dilatation of coronary artery stenosis—percutaneous transluminal coronary angioplasty. N Engl J Med 301:61, 1979.

49. Kent KM, Bentivoglio GL, Block PC, et al.: Percutaneous transluminal coronary angioplasty: report from the registry of the National Heart, Lung, and Blood Institute. Am J Cardiol 49:2011, 1982.

50. Kent KM, Mullin SM, Passamani ER (eds): Proceedings of the National Heart, Lung, and Blood Institute workshop on the outcome of percutaneous transluminal angioplasty (June 7-8, 1983). Am J Cardiol 53:1C, 1984.

51. Detre K, Costigan T, Kelsey S, et al.: PTCA in 1985: the NHLBI Resistry (abstract). J Am Coll Cardiol 9:19A, 1987.

52. Leimgruber PP, Roubin GS, Hollman J, Cotsonis GA, Meier B, Douglas JS, King SB, Gruentzig AR: Restenosis after successful coronary angioplasty in patients with single vessel disease. Circulation 73:710, 1986.

53. Takaro T, Hultgren HN, Detre KM, Peduzzi P: The Veterans Administration Cooperative Study of stable angina: current status. Circulation 65(suppl II):II-60, 1982.

54. Takaro T, Pifarre R, Fish R: Left main coronary artery disease. Prog Cardiovas Dis 28:229, 1985.

55. Chaitman BP, Fisher LD, Bourassa MG: Effect of coronary bypass surgery on survival patterns in subsets of patients with left main coronary artery disease. Report of the Collaborative Study in Coronary Artery Surgery (CASS). Am J Cardiol 48:765, 1981.

56. Varnauskas E, and the European Coronary Surgery Study Group. Survival, myocardial infarction, and employment status in a prospective randomized study of coronary bypass surgery. Circulation 72(Suppl V):90, 1985.

57. Kaiser GC, Davis KB, Fisher LD, Myers WO, Foster ED, Passamani ER, Gillespie MJ: Survival following coronary artery bypass grafting in patients with severe angina pectoris (CASS). J Thorac Cardiovasc Surg 89:513, 1985.

58. Killip T, Passamani E, Davis K, and the CASS Principal Investigators and their Associates. Coronary artery surgery study (CASS): a randomized trial of coronary bypass surgery. Eight-year follow-up and survival in patients with reduced ejection fraction. Circulation 72(Suppl V):102, 1985.

59. Loop FD, Lytle BW, Cosgrove DM, Stewart RW, Goormastic M, Williams GW, Golding LAR, Gill CC, Taylor PC, Sheldon WC, Proudfit WL: Influence of the internal mammary artery graft on 10-year survival and other cardiac events. N Engl J Med 314:1, 1986.

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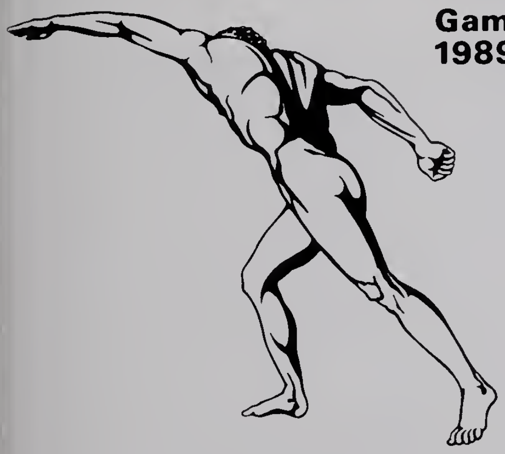

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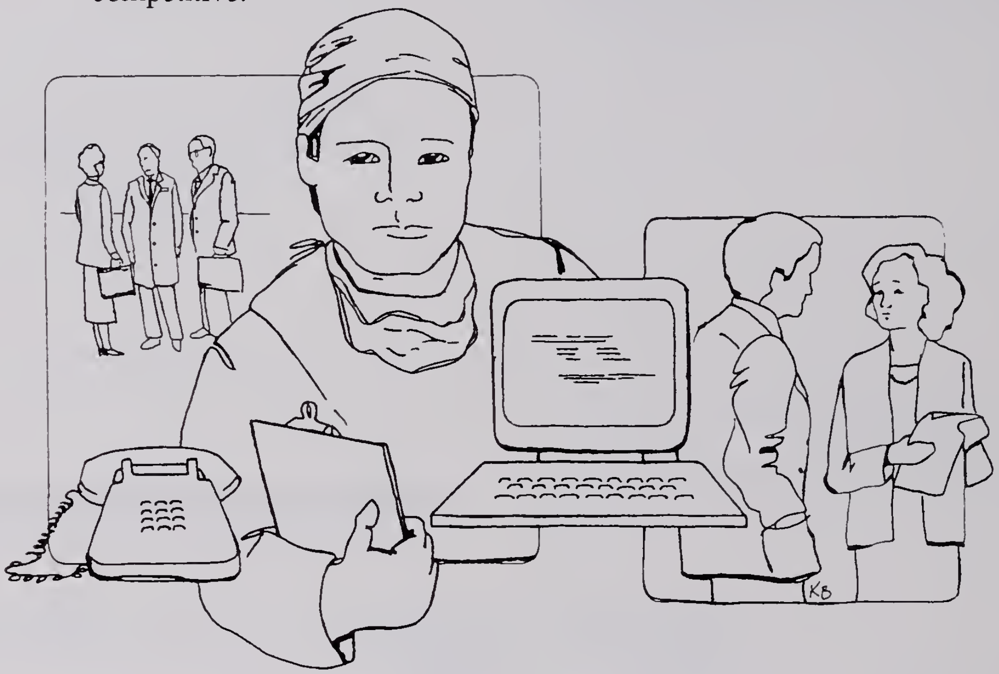

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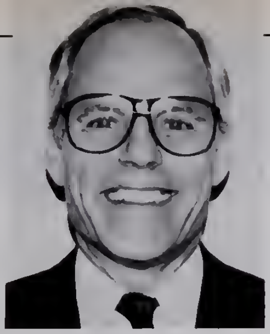

ROBERT D. CHRISTENSEN, M.D.

A Vision for the Profession

I look forward to serving as your president during the coming year and consider it a privilege. As members of the Minnesota Medical Association, we have been blessed with a tradition of outstanding presidents. As this year's president, I have the privilege of standing on the shoulders of those who have served us so well in the past. The president's role, as I see it, is to be the chief spokesperson for the MMA and to serve as a focus for the issues that members and others want our organization to address. Another important aspect of the president's role, I believe, is to provide a vision for the MMA and its members to consider in the coming year.

My initial vision is to revitalize medicine's professionalism. Medicine has lost some of its professionalism through the incorporation of medicine, greater governmental regulation, increased licensing of paraprofessionals, the growing influence of health care administrators, and proliferating litigation. The potential effects of this deprofessionalization of medicine include a decreased commitment of physicians to their patients and a loss of patients' trust in their physicians. Also as a consequence, fewer of our brightest students may choose to become physicians. As Reed and Evans asked two years ago in *JAMA* (Vol. 258[22]:3279-3282, 1987), "Will the highest-quality young people find the costs and constraints of the practice of medicine a deterrent to seeking medical careers—particularly in an era characterized by the expansion of chronic and degenerative diseases of an aging population?" Today, I worry that the answer is too often yes.

One of the primary ways physicians can improve professionalism in medicine is to be the developers and maintainers of clinical standards or parameters by which patient care data will be evaluated. We physicians must be the keepers of these clinical care standards. The MMA is cooperating with other state medical organizations in such a project—the Minnesota Clinical Comparison and Assessment Project—to achieve this vision. The project's primary objective is to develop clinical guidelines for 20 to 25 high-volume, high-risk medical conditions and procedures. I see this as perhaps the key issue for the coming year, and I will write more about it in my next letter. In future letters I will also address other ways we can try to improve professionalism in medicine.

I look forward to serving as your president during the coming year and stand ready to be at your service. ■

MMA's New President

MMA President Robert D. Christensen, M.D., is a board-certified general surgeon at the Park Nicollet Medical Center. He received his undergraduate degree from St. Johns University and his medical degree from the University of Minnesota. He furthered his post-graduate studies at the Mayo Graduate School of Medicine.

Dr. Christensen has served on the Minnesota Medical Association's Board of Trustees since 1979 and for three years served as its chairman. Dr. Christensen is also a member of the Board of Trustees of the Park Nicollet Medical Center and the Healthcare Education and Research Foundation and is currently a delegate to the American Medical Association and chairman of the MMA's Ad Hoc Committee on Quality Assessment and Data Utilization.

He has also served as chairman of the MMA Interspecialty Council, as a member of the Medical Student Loan Committee, the board of the Minnesota Medical Insurance Exchange, the board of the Foundation for Health Care Evaluation and numerous foundation committees, the Governor's Commission to Promote Minnesota's Health Care Resources, the Hennepin County Medical Society, the Minneapolis and Minnesota surgical societies, and the American College of Surgeons.

He and his wife Nancy have three children and reside in Shakopee, Minnesota.

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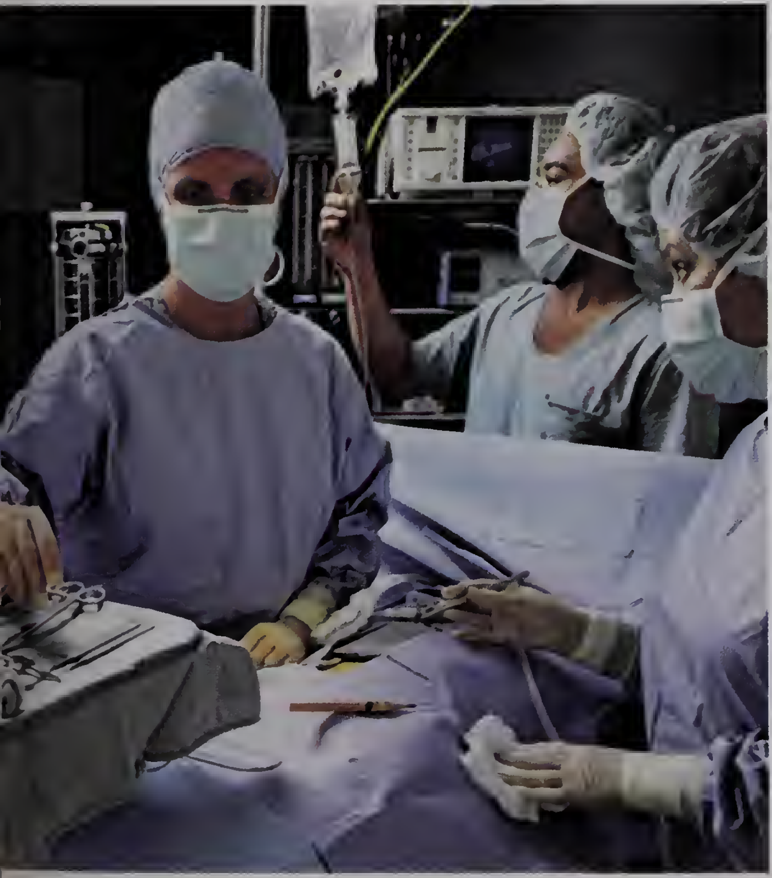

Dr. Holwick in operating room at Letterman Army Medical Center.

JANN L. HOLWICK, M.D.

General and Trauma Surgeon.
Captain, U.S. Army Reserve.

EDUCATION University of Southern California, B.S.; University of California School of Medicine.

RESIDENCY Harbor General Hospital—UCLA Medical Center.

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Axid is indicated for maintenance therapy for duodenal ulcer patients at a reduced dosage of 150 mg h.s. after healing of an active duodenal ulcer. The consequences of continuous therapy with Axid for longer than one year are not known.

Contraindication: Axid is contraindicated in patients with known hypersensitivity to the drug and should be used with caution in patients with hypersensitivity to other H_2-receptor antagonists.

Precautions: *General* — 1. Symptomatic response to nizatidine therapy does not preclude the presence of gastric malignancy.

2. Because nizatidine is excreted primarily by the kidney, dosage should be reduced in patients with moderate to severe renal insufficiency

3. Pharmacokinetic studies in patients with hepatorenal syndrome have not been done. Part of the dose of nizatidine is metabolized in the liver. In patients with normal renal function and uncomplicated hepatic dysfunction, the disposition of nizatidine is similar to that in normal subjects.

Laboratory Tests — False-positive tests for urobilinogen with Multistix® may occur during therapy with nizatidine

Drug Interactions — No interactions have been observed between Axid and theophylline, chlordiazepoxide, lorazepam, lidocaine, phenytoin, and warfarin. Axid does not inhibit the cytochrome P-450-linked drug-metabolizing enzyme system; therefore, drug interactions mediated by inhibition of hepatic metabolism are not expected to occur. In patients given very high doses (3,900 mg) of aspirin daily, increases in serum salicylate levels were seen when nizatidine, 150 mg b.i.d., was administered concurrently.

Carcinogenesis, Mutagenesis, Impairment of Fertility — A two-year oral carcinogenicity study in rats with doses as high as 500 mg/kg/day (about 80 times the recommended daily therapeutic dose) showed no evidence of a carcinogenic effect. There was a dose-related increase in the density of enterochromaffin-like (ECL) cells in the gastric oxyntic mucosa. In a two-year study in mice, there was no evidence of a carcinogenic effect in male mice; although hyperplastic nodules of the liver were increased in the high-dose males as compared with placebo. Female mice given the high dose of Axid (2,000 mg/kg/day, about 330 times the human dose) showed marginally statistically significant increases in hepatic carcinoma and hepatic nodular hyperplasia with no numerical increase seen in any of the other dose groups. The rate of hepatic carcinoma in the high-dose animals was within the historical control limits seen for the strain of mice used. The female mice were given a dose larger than the maximum tolerated dose, as indicated by excessive (30%) weight decrement as compared with concurrent controls and evidence of mild liver injury (transaminase elevations). The occurrence of a marginal finding at high dose only in animals given an excessive and somewhat hepatotoxic dose, with no evidence of a carcinogenic effect in rats, male mice, and female mice (given up to 360 mg/kg/day, about 60 times the human dose), and a negative mutagenicity battery are not considered evidence of a carcinogenic potential for Axid.

Axid was not mutagenic in a battery of tests performed to evaluate its potential genetic toxicity, including bacterial mutation tests, unscheduled DNA synthesis, sister chromatid exchange, mouse lymphoma assay, chromosome aberration tests, and a micronucleus test.

In a two-generation, perinatal and postnatal fertility study in rats, doses of nizatidine up to 650 mg/kg/day produced no adverse effects on the reproductive performance of parental animals or their progeny.

Pregnancy — Teratogenic Effects — Pregnancy Category C — Oral reproduction studies in rats at doses up to 300 times the human dose and in Dutch Belted rabbits at doses up to 55 times the human dose revealed no evidence of impaired fertility or teratogenic effect; but, at a dose equivalent to 300 times the human dose, treated rabbits had abortions, decreased number of live fetuses, and depressed fetal weights. On intravenous administration to pregnant New Zealand White rabbits, nizatidine at 20 mg/kg produced cardiac enlargement, coarctation of the aortic arch, and cutaneous edema in one fetus and at 50 mg/kg it produced ventricular anomaly, distended abdomen, spina bifida, hydrocephaly, and enlarged heart in one fetus. There are, however, no adequate and well-controlled studies in pregnant women. It is also not known whether nizatidine can cause fetal harm when administered to a pregnant woman or can affect reproduction capacity. Nizatidine should be used during pregnancy only if the potential benefit justifies the potential risk to the fetus.

Nursing Mothers — Studies conducted in lactating women have shown that <0.1% of the administered oral dose of nizatidine is secreted in human milk in proportion to plasma concentrations. Caution should be exercised when administering nizatidine to a nursing mother.

Pediatric Use — Safety and effectiveness in children have not been established.

Use in Elderly Patients — Ulcer healing rates in elderly patients are similar to those in younger age groups. The incidence rates of adverse events and laboratory test abnormalities are also similar to those seen in other age groups. Age alone may not be an important factor in the disposition of nizatidine. Elderly patients may have reduced renal function.

Adverse Reactions: Clinical trials of nizatidine included almost 5,000 patients given nizatidine in studies of varying durations. Domestic placebo-controlled trials included over 1,900 patients given nizatidine and over 1,300 given placebo. Among reported adverse events in the domestic placebo-controlled trials, sweating (1% vs 0.2%), urticaria (0.5% vs < 0.01%), and somnolence (2.4% vs 1.3%) were significantly more common in the nizatidine group. A variety of less common events was also reported; it was not possible to determine whether these were caused by nizatidine.

Hepatic — Hepatocellular injury, evidenced by elevated liver enzyme tests (SGOT [AST], SGPT [ALT], or alkaline phosphatase), occurred in some patients and was possibly or probably related to nizatidine. In some cases, there was marked elevation of SGOT, SGPT enzymes (greater than 500 IU/L) and, in a single instance, SGPT was greater than 2,000 IU/L. The overall rate of occurrences of elevated liver enzymes and elevations to three times the upper limit of normal, however, did not significantly differ from the rate of liver enzyme abnormalities in placebo-treated patients. All abnormalities were reversible after discontinuation of Axid.

Cardiovascular — In clinical pharmacology studies, short episodes of asymptomatic ventricular tachycardia occurred in two individuals administered Axid and in three untreated subjects.

CNS — Rare cases of reversible mental confusion have been reported.

Endocrine — Clinical pharmacology studies and controlled clinical trials showed no evidence of antiandrogenic activity due to Axid. Impotence and decreased libido were reported with equal frequency by patients who received Axid and by those given placebo. Rare reports of gynecomastia occurred.

Hematologic — Fatal thrombocytopenia was reported in a patient who was treated with Axid and another H_2-receptor antagonist. On previous occasions, this patient had experienced thrombocytopenia while taking other drugs. Rare cases of thrombocytopenic purpura have been reported.

Integumental — Sweating and urticaria were reported significantly more frequently in nizatidine- than in placebo-treated patients. Rash and exfoliative dermatitis were also reported.

Hypersensitivity — As with other H_2-receptor antagonists, rare cases of anaphylaxis following administration of nizatidine have been reported. Because cross-sensitivity in this class of compounds has been observed, H_2-receptor antagonists should not be administered to individuals with a history of previous hypersensitivity to these agents. Rare episodes of hypersensitivity reactions (eg, bronchospasm, laryngeal edema, rash, and eosinophilia) have been reported.

Other — Hyperuricemia unassociated with gout or nephrolithiasis was reported. Eosinophilia, fever, and nausea related to nizatidine administration have been reported.

Overdosage: Overdoses of Axid have been reported rarely. The following is provided to serve as a guide should such an overdose be encountered.

Signs and Symptoms — There is little clinical experience with overdosage of Axid in humans. Test animals that received large doses of nizatidine have exhibited cholinergic-type effects, including lacrimation, salivation, emesis, miosis, and diarrhea. Single oral doses of 800 mg/kg in dogs and of 1,200 mg/kg in monkeys were not lethal. Intravenous median lethal doses in the rat and mouse were 301 mg/kg and 232 mg/kg respectively

Treatment — To obtain up-to-date information about the treatment of overdose, a good resource is your certified regional Poison Control Center. Telephone numbers of certified poison control centers are listed in the *Physicians' Desk Reference (PDR)*. In managing overdosage, consider the possibility of multiple drug overdoses, interaction among drugs, and unusual drug kinetics in your patient.

If overdosage occurs, use of activated charcoal, emesis, or lavage should be considered along with clinical monitoring and supportive therapy. Renal dialysis for four to six hours increased plasma clearance.

PV 2096 AMP [013089]

Additional information available to the profession on request.

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[1] Data on file, Lilly Research Laboratories.

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Prescribing: Legal Requirements

A Report of the Minnesota Medical Association Committee on Ethics and Medical-Legal Affairs

The prescribing, dispensing, and administering of prescription medications are within the special domain of medical practice and have received increased attention in recent years from many different sources. This article reviews the current legal standards and record-keeping requirements physicians must follow when prescribing drugs. It reviews the sources of authority on this subject and the requirements of each, and it reviews the classification of controlled substances by federal and state authorities. Finally, this article provides suggestions for record keeping in physician offices.

Government Authorities

State Board of Medical Examiners: Although Minnesota Statutes Chapter 147, the Medical Practice Act, is the primary law governing physician practice in this state, it deals explicitly with the physician's authority to prescribe, administer, and dispense drugs only in its section on grounds for disciplinary action. That section provides that "prescribing a drug or device for other than medically accepted therapeutic or experimental or investigative purposes authorized by a state or federal agency" is prohibited and is grounds for disciplinary action.

Record-keeping requirements and acceptable delegation of functions by physicians are also described in the grounds for disciplinary action section of the Medical Practice Act. The Board of Medical Examiners (BME) expects that appropriate record keeping of prescribing, administering, and dispensing of drugs will be maintained, and the BME could discipline a physician for "failure to maintain adequate medical records." The requirements of this record keeping are, in part, set out in other laws reviewed in this report. Physicians also may be disciplined for inappropriately delegating their responsibilities.

State Board of Pharmacy: The Minnesota Board of Pharmacy has the statutory power to regulate the practice of pharmacy in Minnesota. This authority encompasses "the compounding, dispensing, or labeling of drugs and devices." The Board of Pharmacy has the authority to regulate the retail sale of drugs within the state, to regulate the labeling of all drugs and medicines dispensed in the state, and to enter and inspect all places where drugs, medicines, or devices are sold, vended, given away, compounded, dispensed, manufactured, wholesaled, or held. Thus, the Board of Pharmacy has the authority, after giving reasonable notice, to enter and inspect a physician clinic that is dispensing medicines.

Federal Drug Enforcement Administration: The federal Drug Enforcement Administration (DEA) is responsible for combating inappropriate prescribing and consumption of pharmaceuticals and monitors the manufacture and distribution of controlled substances into the stream of commerce. To a large extent, the DEA carries this out by enforcing the record-keeping requirements that drug manufacturers, distributors, pharmacists, and physicians must follow.

DEA Requirements: The Drug Enforcement Administration oversees the federal registration of physicians and other practitioners* authorized by law to administer, prescribe, or dispense controlled substances.

Under a new DEA system, physicians must renew their registration every three years. The Certificate of Registration received from the DEA must be maintained at the registered location and must be available for official inspection. Physicians with more than one office must maintain the registration for any office at which they administer or dispense controlled substances. The physician who has registered a principal office and merely prescribes controlled substances from other locations need not register those other locations. The registration certificate must be modified whenever a physician changes his or her principal place of practice. This modification must be completed before the physician prescribes, dispenses, or administers any controlled drugs at the new practice location.

Physicians who store controlled substances at their offices or clinics must keep them in a securely locked, substantially constructed cabinet or safe. Thefts of controlled substances must be reported to the DEA.

When a physician discontinues his or her practice, the registration

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**This report uses the term "physician" rather than "practitioner" when discussing DEA and other requirements that may also apply to other health professionals authorized to prescribe controlled substances.*

Classification of Controlled Substances

Federal Classification

Controlled substances are drugs that are under the jurisdiction of the federal Controlled Substances Act and fall within one of five schedules, briefly summarized as follows:

Schedule I: Drugs in this schedule have no currently accepted medical use in the United States and have a high potential for abuse. Examples of drugs in this schedule are heroin, marijuana, LSD, THC, peyote, mescaline, psiliocybin, and mecloqualone.

Schedule II: These drugs have a high potential for abuse and can cause severe psychic or physical dependence. Controlled drugs in Schedule II have currently accepted medical uses and include certain narcotics, stimulants, and depressants. Narcotics in Schedule II include opium, morphine, codeine, methadone, cocaine, and oxycodone (Percodan), alfentanil, and levomethorphan. Other Schedule II drugs are amphetamine (Benzadrine, Dexedrine), methamphetamine (Desoxyn), phenmetrazine (Preludin), methylphenidate (Ritalin), amobarbital, pentobarbital (Nembutal), and secobarbital (Seconal, Tuinal).

Schedule III: Drugs in this schedule have less abuse potential than drugs in schedules I and II. The drugs in Schedule III include compounds containing limited quantities of certain narcotic drugs such as codeine, or non-narcotic drugs, including derivatives of barbituric acid, as well as glutethimide (Doriden) and methyprylon (Noludar). The federal classification system places in Schedule III any suppository dosage form containing ammobarbital, secobarbital, or pentobarbital.

Schedule IV: Schedule IV controlled drugs have less potential for abuse than those listed in Schedule III. Barbital, phenobarbital, ethinamate (Valmid), meprobamate (Equanil, Miltown), chlordiazepoxide (Librium), diazepam (Valium), alprazolam (Xanax), temazepam (Restoril), triazolam (Halcion), lorazepam (Ativan), and pentazocine (Talwin Nx), are some of the drugs in this category.

Schedule V: Schedule V drugs have less potential for abuse than those listed in the other schedules and are primarily preparations containing limited quantities of certain narcotic drugs, generally for antitussive or antidiarrheal purposes.

State Classification

State law also includes a chapter on "prohibited drugs." This law, Minnesota Statutes Chapter 152, is similar, but not identical, to the federal drug classification scheme. The Board of Pharmacy annually reviews placement of controlled substances in schedules; for this and other reasons, the state classification may not exactly mirror the federal classification. On occasion, a drug may be classified differently in the federal and state schedules. Physicians should abide by the more restrictive classification. Any questions regarding these classifications should be directed to the Board of Pharmacy. In addition to listing the drugs or types of drugs in each schedule, the board classifies additional drugs with abuse potential according to the following criteria:

Schedule I: These substances have a high abuse potential and no currently accepted medical use in the United States. They are not considered safe for use under medical supervision.

Schedule II: These substances have a high potential for abuse and are currently accepted for medical use in the United States or are currently accepted for medical use with severe restrictions. Their abuse may lead to severe psychological or physical dependence.

Schedule III: These substances have less abuse potential than the drugs in schedules I and II, and they are currently accepted for medical use in the United States. Their abuse may lead to moderate or low physical dependence or high psychological dependence.

Schedule IV: These substances have less abuse potential than those in Schedule III. They are currently accepted for medical use in the United States, and they may lead to limited physical or psychological dependence.

Schedule V: These substances have less potential for abuse than substances in Schedule IV. They are currently accepted for medical use and cause less physical and psychological dependence than substances in Schedule IV.

MEDICINE

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certificate must be returned to the DEA. Should the physician have remaining controlled substances on hand, the DEA should be contacted for advice on how to dispose of them. The physician should mark as void and return to the DEA any unused controlled substance order blanks.

The Drug Enforcement Administration's authority to require record keeping and to inspect records is designed to track a controlled drug from the time it is manufactured to the time it is dispensed to the user. DEA record-keeping requirements include the following:

► A specific DEA form must be used for ordering supplies of Schedule II substances (see controlled substance classification, page 360) and a "log book" maintained of invoices for drugs in schedules III through V.

► All controlled substance records must be readily retrievable and separate from other business records.

► Physicians who *dispense* controlled substances must keep a record of each transaction, aside from the dispensing records, that should appear in the medical chart. (DEA inspectors have access to the patient charts that include controlled substance records.)

► Physicians regularly engaged in administering controlled substances must keep records of this if patients are charged for the drugs, either separately or as part of the professional service. When a physician dispenses a controlled drug and administers that drug, occasionally or regularly from the same inventory, a record must be kept of all transactions.

► Physicians occasionally administering controlled drugs but not dispensing them from the same inventory are not required to keep records of those transactions.

Maintenance prescribing, dispensing, or administering of controlled drugs or use of controlled drugs in detoxification treatments (e.g., at methadone clinics) requires separate registration.

The DEA further requires an initial and biennial drug inventory by physicians who dispense or regularly administer controlled substances.

Federal requirements for prescription orders of controlled substances specify: 1) that they be dated and signed on the date issued; 2) that they include the full name and address of the patient; and 3) that they include the name, address, and DEA registration number of the physician. Federal law requires that written prescriptions be manually signed. Written prescriptions (as opposed to oral orders) are required for drugs in Schedule II, and the refilling of Schedule II drug prescription orders is prohibited.

In the event of an emergency, a telephone prescription order for a Schedule II drug may be allowed. The quantity dispensed must be limited to the amount needed to treat the patient within the emergency period. The authorizing physician must furnish, within 72 hours, a written, signed prescription order to the pharmacy. A separate prescription is required for quantities of the drug beyond the emergency supply. The pharmacy is required to notify the DEA if the written prescription is not received within 72 hours.

Federal law allows prescription orders for drugs in schedules III through V to be issued either orally or in writing. They may be refilled if so authorized on the prescription or in subsequent oral communications. The refill allowance is limited to five refills within six months after the date of issue. It is important to note that an absence of refill instructions will be interpreted as a no refill order, and that refill authorizations cannot be relayed to the pharmacy through patients.

Prescription and Record-keeping Requirements

A prescription is a medical order for a particular drug or treatment. In the context of drugs and the pharmacy laws, "prescription" means a signed, written order, or an oral order reduced to writing, issued in the course of a physician's practice to an individual patient. It should include these elements: the date of issue, name and address of the patient, name and quantity of the drug prescribed, directions for use, and the name and address of the prescriber.

Appropriate record keeping for the physician's office should include clear documentation of the patient's condition and need for a controlled substance, an assessment of the benefits to the patient, when appropriate, other treatment modalities considered, the expected length of therapy, and an indication that these factors were discussed with the patient, as well as instructions for the patient on the consumption of the drug. Similar documentation should appear in the chart for any refills authorized or any time there is a change in the prescription or the instructions to the patient. Clinic management consultants strongly recommend that a medication summary be included in each patient's chart.

Delegation of Prescribing, Administering, and Dispensing

Although the Medical Practice Act is generally the authority regarding physicians' delegation of patient care tasks, Minnesota pharmacy statutes address the delegation of tasks related to medicines and drugs. A physician may delegate administration of controlled substances in schedules II through V to a nurse, an intern, or an assistant, under the direction and supervision of the doctor. With regard to legend drugs,† the physician may delegate administration to a nurse or intern under a physician's direction and supervision. For both legend drugs and controlled substances, the physician may delegate the prescribing and administering to an appropriately licensed and certified health care professional when such duties are within the expressed legal scope of that person's practice. At this time, only certified nurse-midwives meet this standard.

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†Legend drugs are those not classified in schedules I through V but required by law to include the following statement: "Caution: Federal law prohibits dispensing without prescription."

The pharmacy laws require that any drugs dispensed in accordance with a prescription must bear a permanently affixed label that includes the name of the manufacturer or distributor of the finished form of the drug, as well as the patient's name, prescription number, name of prescribing physician, instructions for use, date of original issue or renewal, and the name, address, and telephone number of the pharmacy, if any.

Required Warning Labels

All controlled substances, as defined under Minnesota law and rules, and antihistamines, psychotherapeutic agents, and other drugs must include on the label the following: "Caution: Taking this drug alone or with alcohol may impair your ability to drive."

Drug Substitution Law

Minnesota Provisions: The Minnesota pharmacy law addresses the subject of substitution. Any written prescription that bears the handwritten notation "dispense as written" or "DAW" may not be filled with a substitute unless the substitute drug is made by the same company, e.g., the same drug marketed under a different name. Similarly, when a prescription is transmitted orally with the instruction to dispense as communicated, no substitution may be made.

On those occasions when a pharmacist is not prohibited from substituting drugs, the pharmacist may substitute a generically equivalent product. Pharmacists may not do so unless, in their judgment, the substituted drug is "therapeutically equivalent and interchangeable to the prescribed drug." In addition, the pharmacist must have received the patient's consent to substitute and must inform the patient that a substitution has been made. It should be noted that most third-party payers reimburse only for generic drugs (when available). Patients may be responsible for all or part of the cost of prescriptions marked "dispense as written."

Federal Provisions: Federal requirements also address the topic of substitution of medications. The medical assistance and general assistance medical care provider manual, in addressing maximum allowable drug costs, requires that the physician personally indicate "brand necessary" or "medically necessary" in addition to "DAW," in order to ensure that a medication is dispensed as indicated.

Access to Pharmacy Dispensing Records

Changes to the pharmacy law in 1988 allow the physician who originally issued a prescription and the treating physician access to the prescription records in pharmacies. Through this mechanism, a physician may obtain an accurate and complete record of all medications a particular pharmacy has dispensed to a patient.

Unlawful Procurement

Minnesota statutes make it unlawful for any person to attempt to procure or possess a legend drug or a controlled substance by using a false name or other misrepresentation. In addition, it is unlawful to attempt to procure or control a controlled substance by fraud or by giving false credit.

Recommendations for the Physician Office

Appropriate record keeping and office protocols for ordering drug therapy and renewal of prescriptions have become increasingly important. The following guidelines, recommended by clinic management consultants, can help to assure that appropriate documentation and office procedures will become a regular part of the prescribing of drugs and the renewal of drug prescriptions.

1 Clearly indicate in the patient chart the medication prescribed, the condition prescribed for, and instructions for use. The chart notes regarding controlled substance prescribing also should include an indication that other treatment modalities had been considered and rejected or tried and were unsuccessful. When appropriate, consultations regarding prescribing of controlled substances should be noted.

2 Maintain a medication summary as a part of each patient's chart. This summary should include the date of issue of the prescription and information on the drug, the dosage, and the amount prescribed. All refills also should be recorded and all relevant information noted, including any change in instructions given to the patient. The dispensing pharmacy should also be informed of changes in instructions.

3 Adopt a protocol for response to telephone refill requests. The protocol adopted in some offices has included a firm policy that refills will be authorized only by the originating physician (limited renewal in extraordinary instances may be allowed) and that no after-hours or weekend authorizations will be made. Patients are advised to seek authorization for refills two to three days *before* they run out of their medication. An in-office protocol for approval of refill requests could be based on the following: (a) the telephone request is reduced to writing and matched to the patient chart; (b) the physician reviews the patient chart, the refill request is approved, modified, or denied, the physician signs or initials; (c) the appropriate return calls are placed; and (d) the chart and medication summary are updated.

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MALPRACTICE INSURANCE CUT

The St. Paul Companies announced in April that it will reduce its rates for medical malpractice insurance to Minnesota physicians by 25 percent. The rate cut will take effect July 1. The announcement came on the heels of criticism from the state Commerce Commissioner Michael Hatch, who ordered a hearing for this summer to investigate St. Paul Companies' malpractice insurance rates, which he said were as much as 40 percent too high. Officials of the St. Paul Companies said the criticism had no bearing on their decision to reduce rates.

HMOs PROFIT IN '88

Four of the five largest HMOs in Minnesota reported net profits in 1988, reflecting a rebound from financially troublesome 1987. MedCenters Health Plan reported a $1.65 million profit, Group Health, $1.6 million, Physicians Health Plan, $1.1 million, and Share, $106,000. Blue Plus (formerly HMO Minnesota), an arm of Blue Cross and Blue Shield, reported a $3.1 million loss. Blue Cross and Blue Shield, which is not an HMO but the state's largest insurer, reported a $7.9 million profit, which includes the loss from Blue Plus.

SUING TOBACCO COMPANIES

The Minnesota Supreme Court, taking the lead regarding lawsuits against tobacco companies, ruled in April that smokers may sue tobacco companies over health risks posed by smoking cigarettes. The court ruled that litigants may sue over advertising that falsely suggests cigarette smoking is healthful or over additives that may increase the danger of smoking.

ABBOTT STAFF CUTBACKS

Officials of Abbott Northwestern Hospital in Minneapolis announced in April that 400 to 500 employees would be laid off or would face reduced hours by early June. The cutback was implemented in an effort to cut hospital costs by four percent, according to the hospital officials.

FAIRVIEW PRESIDENT, CEO

California health care executive Richard A. Norling has been named president and chief executive officer of the Fairview hospital organization, effective July 1.

He is currently executive vice president and chief operating officer of UniHealth America, a nonprofit system of hospitals and health care ventures headquartered in Burbank. Norling replaces G. M. (Gus) Donhowe, who left Fairview to become senior vice president of finance and operations at the University of Minnesota.

Fairview, based in Minneapolis, has seven hospitals, outpatient health services, and health care management enterprises.

HEALTHEAST PRESIDENT

Timothy Hanson was named on April 20 as president of HealthEast. Hanson had served as interim president since the resignation of John Reiling on February 16. Prior to that, Hanson served as HealthEast's executive vice president of operations.

NEW GROUP HEALTH CENTER

Group Health will build a new medical center to replace the current Riverside Medical Center in the Fairview-St. Mary's Medical Office Building in Minneapolis. Construction is scheduled to begin this fall and projected to be completed in 1991. The new center will have 90,000 square feet of space—significantly more than the current center—and house much of Group Health's specialized, high-tech equipment.

JAMIESON TO SAN DIEGO

Stuart Jamieson, M.D., former chief of cardiovascular surgery at the University of Minnesota Hospital, has said he will take a position with the University of California-San Diego Medical Center's division of heart surgery in July.

BYPASS STUDY

The Minneapolis Heart Institute, the University of Minnesota, and four other medical institutions in the United States will conduct a five-year cholesterol study to see whether bypass grafts can be kept open longer by lowering a patient's cholesterol to levels that have never been attempted previously.

The National Institutes of Health selected the six institutions from more than 100 applicants for the five-year, $30 million project. The other institutions selected are the Cleveland Clinic, Baylor College of Medicine, the Montreal Heart Institute, and Cedars-Sinai Medical Center in Los Angeles.

All patients will be treated with the cholesterol-lowering medication, Lovastatin. Some of the patients will have their LDL cholesterols lowered to 85 mg/dl, a level substantially lower than other trials have ever attempted. All patients will receive free medication, testing, and frequent follow-up examinations during the next five years.

DNA UP CLOSE

University of Minnesota scientists have used a high-resolution technique to produce the most informative pictures to date of DNA molecules. The pictures appeared in the April 28 issue of the journal *Science* and clearly show the helical structure of the DNA molecule. The article also contains pictures of RNA. Such high-quality pictures should enable scientists to directly observe the ways in which DNA interacts with other biological molecules. Since many conditions, including cancer and certain birth defects, arise from failed or improper interactions of DNA with itself or other molecules, their technique opens the door to visualizing exactly what goes wrong and devising treatments aimed at the root cause, according to the scientists, D. Fennel Evans, Victor Bloomfield, Gil Lee, and Patricia Arscott.

3M LYME DISEASE TEST

The Twin Cities-based 3M Company announced in April that it has developed a test for detecting the tick-borne Lyme disease that is more sensitive and objective than most common tests now used, according to Doug Astry, senior immunologist in 3M's biotechnology section.

Lyme disease is caused by a spirochete bacteria and borne by deer ticks, which are often found where certain wild animals—primarily the white-tailed deer—are abundant. The 3M Antigen-Specific IgGIgM Fastlyme Test, approved by the Food and Drug Administration in January, detects antibodies to the spirochete in a blood sample and highlights them with a flourescent agent.

MAYO'S HOSPITALS SPECIALIZE

The Mayo Clinic announced in April that, for financial reasons, it will convert its two full-service hospitals into more specialized units. Over the next five to seven years, Mayo will convert the 791-bed Rochester Methodist Hospital into a center for outpatient surgery and selected outpatient clinical programs. The 1,179-bed Saint Marys Hospital, also in Rochester, will house intensive inpatient operations. The change is designed to eliminate duplication of many services between the two hospitals, which previously had operated independently and were competitors.

NICOTINE PATCH TO HELP STOP SMOKING

Initial results from a Mayo Clinic study show that nearly 80 percent of those who used a nicotine patch were able to stop smoking, compared with less than 40 percent of those using a placebo patch.

When applied to the arm, the silver-dollar-sized patch delivers nicotine directly to the blood stream, allowing the smoker to better cope with nicotine withdrawal. With the patch, a steady dose of nicotine is released throughout the day, replacing nicotine the smoker would otherwise receive by inhaling cigarette smoke.

The results of Mayo's initial study were released April 28 at a national conference of the American Medical Society on Alcohol and Other Drug Dependencies in Atlanta.

PHYSICIAN DIVORCE RATES

Physician marriages are less likely to end in divorce than those of almost any other group in the country, except farmers and the clergy, according to a study conducted by a University of Minnesota researcher. William Doherty, Ph.D., associate professor of family social science at the university, and Sandra Burge, a sociologist at the University of Texas, studied census data from 1970 and 1980 and determined that 30 percent of the physicians' first marriages end in divorce, compared with 50 percent for the nation as a whole. The data for physicians is based on a sampling of 74,822 men and 11,462 women physicians.

BYPASS IS BETTER?

For most coronary heart disease patients, coronary artery bypass graft (CABG) surgery now appears to offer significantly lower survival than medical treatment, a study in the April 14 *Journal of the American Medical Association* indicated.

Surgical survival progressively improved over the study period, from 1969 through 1984, and, in the study's last year, surgery was significantly better in terms of outcome than medical therapy for most heart patients, according to the authors, Robert M. Califf, M.D., and colleagues at Duke University Medical Center, Durham, North Carolina.

The degree of benefit does not depend on specific factors alone, such as age, severity of angina, and degree of heart dysfunction, but applies across the spectrum of all patients with coronary disease, the authors wrote. However, patients who benefited most were those with more severe coronary disease, those who had the worst prognosis, or those who were operated on more recently. The latter association is probably the result of improvements in surgical and medical procedures in recent years, improvements that the authors believe are probably characteristic of most medical centers in the United States.

PROCEDURE MAY AVERT SOME HEART TRANSPLANTS

A procedure using a flap of back muscle wrapped around the heart and stimulated to contract by a special pacemaker made by Medtronic, Inc. of Minneapolis may be an alternative for nearly a third of the people who otherwise would need heart transplants, according to physicians at Allegheny General Hospital in Pittsburgh.

Using a Medtronic 3¼-ounce cardiomyostimulator, physicians at Allegheny General—the only hospital given U.S. Food and Drug Administration approval to use the device in clinical trials—performed the experimental procedure for the first time in the United States. (George Magovern, M.D., chairman of surgery at Allegheny General, performed the back muscle operation for the first time in the U.S. *without* the cardiostimulator in 1985.) As of January 1, the procedure had been performed about 40 times throughout the world; about three-quarters of these operations involved the myostimulator.

RISKY HEART DRUGS?

Federal health officials warned in April that two drugs used to treat heart rhythm irregularities in more than 200,000 Americans increased the risk of heart attack and death in patients studied in a major clinical trial. As a result, the Food and Drug Administration advised physicians to stop prescribing the drugs, Tambocor (generically called flecainide) and Enkaid (generically called encainide).

Health officials studied data from 730 patients at 27 different medical centers who had been treated with Tambocor or Enkaid for an average of 10 months. Of the 730, 56 (7.7 percent) suffered cardiac arrest or died, compared with 22 (3.0 percent) who took placebos.

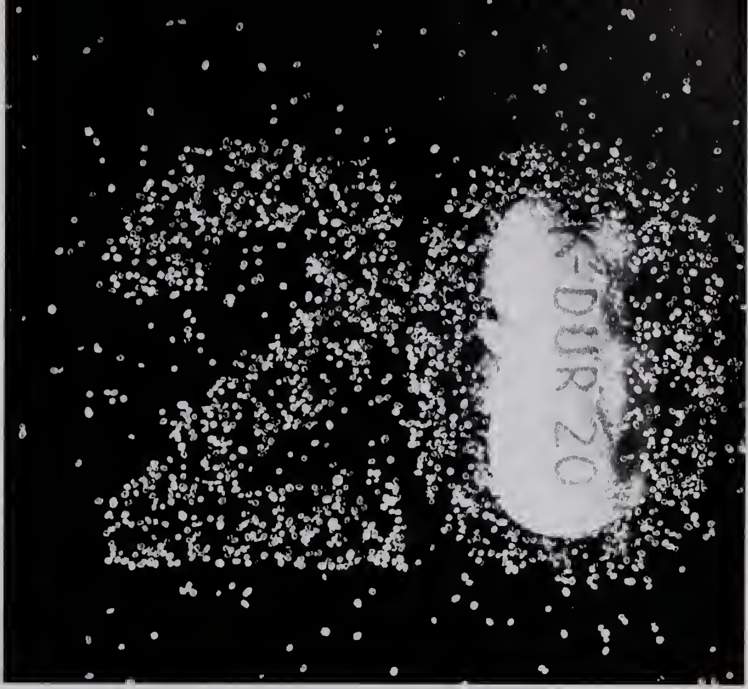
TV PICTURES INSIDE CORONARY ARTERY

For the first time, the inside of a coronary artery was displayed on a television monitor this past April. Two New Orleans cardiologists used a percutaneous coronary angioscope equipped with fiber optics to view the interior of three men's coronary arteries. The image was made possible by inflating a small balloon inside the artery to dilate the blood vessel and stop the blood flow for 10 to 15 seconds.

PROSTATE TREATMENT QUESTIONED

The standard operation for enlarged prostates—transurethral prostatectomy—is less effective than the open prostatectomy that it widely displaced and appears to increase the risk of death in the five years following the operation, an international study recently concluded. The study, by Noralou P. Roos, M.D., of the University of Manitoba in Winnipeg, and colleagues, analyzed records of 36,703 men undergoing prostate operations in Denmark, 5,284 in England, and 12,090 in Manitoba. The study was published in the April 29 *New England Journal of Medicine.*

Analysis showed that more men required a second operation and/or other urological procedures after a transurethral prostatectomy than after an open prostatectomy. The researchers also said that in Manitoba, where detailed records were available, there was a 45 percent greater chance of dying in the five years following a transurethral prostatectomy than in the five years following an open prostatectomy.



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Please see next page for brief summary of prescribing information.

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INDICATIONS AND USAGE: BECAUSE OF REPORTS OF INTESTINAL AND GASTRIC ULCERATION AND BLEEDING WITH SLOW-RELEASE POTASSIUM CHLORIDE PREPARATIONS, THESE DRUGS SHOULD BE RESERVED FOR THOSE PATIENTS WHO CANNOT TOLERATE OR REFUSE TO TAKE LIQUID OR EFFERVESCENT POTASSIUM PREPARATIONS OR FOR PATIENTS IN WHOM THERE IS A PROBLEM OF COMPLIANCE WITH THESE PREPARATIONS.

1. For therapeutic use in patients with hypokalemia with or without metabolic alkalosis, in digitalis intoxication and in patients with hypokalemic familial periodic paralysis.
2. For the prevention of potassium depletion when the dietary intake is inadequate in the following conditions: Patients receiving digitalis and diuretics for congestive heart failure, hepatic cirrhosis with ascites, states of aldosterone excess with normal renal function, potassium-losing nephropathy, and with certain diarrheal states.
3. The use of potassium salts in patients receiving diuretics for uncomplicated essential hypertension is often unnecessary when such patients have a normal dietary pattern. Serum potassium should be checked periodically, however, and if hypokalemia occurs, dietary supplementation with potassium-containing foods may be adequate to control milder cases. In more severe cases supplementation with potassium salts may be indicated

CONTRAINDICATIONS: Potassium supplements are contraindicated in patients with hyperkalemia since a further increase in serum potassium concentration in such patients can produce cardiac arrest. Hyperkalemia may complicate any of the following conditions: Chronic renal failure, systemic acidosis such as diabetic acidosis, acute dehydration, extensive tissue breakdown as in severe burns, adrenal insufficiency, or the administration of a potassium-sparing diuretic (e.g., spironolactone, triamterene).

Wax-matrix potassium chloride preparations have produced esophageal ulceration in certain cardiac patients with esophageal compression due to enlarged left atrium.

All solid dosage forms of potassium chloride supplements are contraindicated in any patient in whom there is cause for arrest or delay in tablet passage through the gastrointestinal tract. In these instances, potassium supplementation should be with a liquid preparation.

WARNINGS: Hyperkalemia—In patients with impaired mechanisms for excreting potassium, the administration of potassium salts can produce hyperkalemia and cardiac arrest. This occurs most commonly in patients given potassium by the intravenous route but may also occur in patients given potassium orally. Potentially fatal hyperkalemia can develop rapidly and be asymptomatic. The use of potassium salts in patients with chronic renal disease, or any other condition which impairs potassium excretion, requires particularly careful monitoring of the serum potassium concentration and appropriate dosage adjustment.

Interaction with Potassium Sparing Diuretics—Hypokalemia should not be treated by the concomitant administration of potassium salts and a potassium-sparing diuretic (e.g., spironolactone or triamterene) since the simultaneous administration of these agents can produce severe hyperkalemia

Gastrointestinal Lesions—Potassium chloride tablets have produced stenotic and/or ulcerative lesions of the small bowel and deaths. These lesions are caused by a high localized concentration of potassium ion in the region of a rapidly dissolving tablet, which injures the bowel wall and thereby produces obstruction, hemorrhage or perforation.

K-DUR tablets contain micro-crystalloids which disperse upon disintegration of the tablet. These micro-crystalloids are formulated to provide a controlled release of potassium chloride. The dispersibility of the micro-crystalloids and the controlled release of ions from them are intended to minimize the possibility of a high local concentration near the gastrointestinal mucosa and the ability of the KCl to cause stenosis or ulceration. Other means of accomplishing this (e.g., incorporation of potassium chloride into a wax matrix) have reduced the frequency of such lesions to less than one per 100,000 patient years (compared to 40–50 per 100,000 patient years with enteric-coated potassium chloride) but have not eliminated them. The frequency of GI lesions with K-DUR tablets is, at present, unknown. K-DUR tablets should be discontinued immediately and the possibility of bowel obstruction or perforation considered if severe vomiting, abdominal pain, distention, or gastrointestinal bleeding occurs.

Metabolic Acidosis—Hypokalemia in patients with metabolic acidosis should be treated with an alkalinizing potassium salt such as potassium bicarbonate, potassium citrate, potassium acetate, or potassium gluconate.

PRECAUTIONS: The diagnosis of potassium depletion is ordinarily made by demonstrating hypokalemia in a patient with a clinical history suggesting some cause for potassium depletion. In interpreting the serum potassium level, the physician should bear in mind that acute alkalosis per se can produce hypokalemia in the absence of a deficit in total body potassium while acute acidosis per se can increase the serum potassium concentration into the normal range even in the presence of a reduced total body potassium. The treatment of potassium depletion, particularly in the presence of cardiac disease, renal disease, or acidosis requires careful attention to acid-base balance and appropriate monitoring of serum electrolytes, the electrocardiogram, and the clinical status of the patient.

Laboratory Tests: Regular serum potassium determinations are recommended. In addition, during the treatment of potassium depletion, careful attention should be paid to acid-base balance, other serum electrolyte levels, the electrocardiogram, and the clinical status of the patient, particularly in the presence of cardiac disease, renal disease, or acidosis

Drug Interactions: Potassium-sparing diuretics; see **WARNINGS.**

Carcinogenesis, Mutagenesis, Impairment of Fertility: Long-term carcinogenicity studies in animals have not been performed.

Pregnancy Category C: Animal reproduction studies have not been conducted with K-DUR. It is also not known whether K-DUR can cause fetal harm when administered to a pregnant woman or can affect reproduction capacity. K-DUR should be given to a pregnant woman only if clearly needed.

Nursing Mothers: The normal potassium ion content of human milk is about 13 mEq per liter. Since oral potassium becomes part of the body potassium pool, so long as body potassium is not excessive, the contribution of potassium chloride supplementation should have little or no effect on the level in human milk.

Pediatric Use: Safety and effectiveness in children have not been established.

ADVERSE REACTIONS: One of the most severe adverse effects is hyperkalemia (see **CONTRAINDICATIONS, WARNINGS,** and **OVERDOSAGE).** There have also been reports of upper and lower gastrointestinal conditions including obstruction, bleeding, ulceration, and perforation (see **CONTRAINDICATIONS** and **WARNINGS**); other factors known to be associated with such conditions were present in many of these patients.

The most common adverse reactions to oral potassium salts are nausea, vomiting, abdominal discomfort, and diarrhea. These symptoms are due to irritation of the gastrointestinal tract and are best managed by taking the dose with meals or reducing the dose.

Skin rash has been reported rarely.

OVERDOSAGE: The administration of oral potassium salts to persons with normal excretory mechanisms for potassium rarely causes serious hyperkalemia. However, if excretory mechanisms are impaired or if potassium is administered too rapidly intravenously, potentially fatal hyperkalemia can result (see **CONTRAINDICATIONS** and **WARNINGS**). It is important to recognize that hyperkalemia is usually asymptomatic and may be manifested only by an increased serum potassium concentration and characteristic electrocardiographic changes (peaking of T-waves, loss of P-waves, depression of S-T segment, and prolongation of the QT-interval). Late manifestations include muscle-paralysis and cardiovascular collapse from cardiac arrest.

Treatment measures for hyperkalemia include the following:

1. Elimination of foods and medications containing potassium and of potassium-sparing diuretics.
2. Intravenous administration of 300 to 500 ml/hr of 10% dextrose solution containing 10–20 units of insulin per 1,000 ml.
3. Correction of acidosis, if present, with intravenous sodium bicarbonate.
4. Use of exchange resins, hemodialysis, or peritoneal dialysis.

In treating hyperkalemia, it should be recalled that in patients who have been stabilized on digitalis, too rapid a lowering of the serum potassium concentration can produce digitalis toxicity.

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MEDICAL VALUATION SPECIALISTS

Swan from page 326

catheterization laboratory at St. Mary's Hospital in Rochester in 1959. I stayed at Mayo until 1965.

REECE: *Was that one of the first catheterization laboratories in the United States?*

SWAN: No. When I came to Rochester in 1951, Dr. Wood had a superb catheterization laboratory, but it was not in the hospital, and it did not have formal angiography. The laboratory I directed at St. Mary's did have angiographic facilities, and it was an excellent laboratory for its time.

REECE: *What were your reasons for founding the laboratory? What were the pressures to do so?*

SWAN: We had a superb group of people in cardiology and cardiovascular surgery. John Kirklin, Henry Ellis, and Dwight McGoon were all giants at the time in cardiac surgery, and we had become a center for treating congenital malformations of the heart. I had a lot of experience in the management of small infants, children, and young adults with congenital malformations. And then, of course, valves had been of interest to the Mayo surgeons since 1960, and we worked with a heart valve program as well.

REECE: *When was the transition made in cardiology from congenital and rheumatic heart disease to ischemic heart disease? Coronary bypass surgery has revolutionized cardiology. Could you trace that revolution for us?*

SWAN: Yes, it's a major revolution. Credit must go to Mason Sones. He was a superb catheterizer, angiographer, and an expert in radiological techniques, although he was not a radiologist. He really developed cineangiography, primarily for congenital malformations. Then he fortuitously became involved in coronary angiography. For the first time, we could see the lesions in the coronary vessels, and we could understand the anatomic background for coronary vascular disease. Sones was doing this around 1962, but coronary arteriography didn't catch on until the mid-60s. By then, of course, it had become evident that the concept of coronary bypass would work. After 1965, the Cleveland Clinic group, in particular, developed, perfected, and pushed ahead with the techniques of myocardial vascularization.

REECE: *Where were you in your career at that point?*

"I suppose every carpenter reaches for the tool with which he is familiar, and I happened to be familiar with catheters."

SWAN: I was in transition from the very orderly and predictable behavior of congenital and valvular heart disease into this area that nobody knew anything about—myocardial ischemia. Today it's easy for us to divide the basis of coronary artery disease into two components: one, coronary vascular disease, with its one set of problems; and two, the resulting dysfunction, or destruction, of the myocardium. We had to separate those two things. They're different. When Sones was describing the anatomy of the coronary arteries, we hadn't the foggiest idea how the ventricle of the myocardium was functioning. That was a transition stage for me, the basis of developing the Swan-Ganz catheter.

REECE: *Tell us about the development of the Swan-Ganz catheter.*

SWAN: I was curious about what was going on in the myocardial infarct patient. Every so often you would see a patient who was doing very well and seemed to be fine, and then very quickly he would lapse into progressive heart failure and die. It was obvious that something terrible was happening that the electrocardiogram was not telling us about. The electrocardiogram was the only tool at the time, and we were just starting to use enzyme determinations of myocardial infarcts. The development of the flotation catheter basically allowed us to study and to understand why patients with heart attacks got sick. From catheter measurements, we quickly demonstrated that patients got sick because they had a lot of myocardium involved. If they didn't have a lot of myocardium involved, they didn't get sick. It became imperative to measure myocardial performance, which led to the development of the flotation catheter.

REECE: *In what setting was the catheter developed? Was that in California?*

SWAN: Yes, entirely in California. I was mystified as to why these patients couldn't be categorized properly and why we couldn't give a prognosis. I suppose every carpenter reaches for the tool with which he is familiar, and I happened to be familiar with catheters. So we put the balloon on the tip, and that was the answer to the problem. Besides, without fluoroscopy and with minimal complications, we could catheterize the patient in bed. Not only that, we didn't spill any blood. If you make a mess on the bed sheets, your nurses don't like you, and if nurses don't like you, you're not going to be able to do anything in a clinical setting. It's that simple.

REECE: *What was your academic position at that time, and who was Ganz?*

SWAN: I was professor of medicine at the UCLA School of Medicine and director of cardiology at Cedars-Sinai Medical Center. Dr. Ganz is a wonderful colleague and friend who fled Czechoslovakia in 1966 or 1967 with his wife and children and came to Los Angeles. He had an interest in dilution techniques, which I had worked on in Rochester with Dr. Wood. I had a small residual grant still in my back pocket that was just enough to provide Dr. Ganz with a near-living wage, so I was able to employ him

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in my department. When the flotation catheter seemed to have some real potential, he worked on it and made major contributions.

REECE: *And when did the Swan-Ganz catheter reach the attention of the medical world?*

SWAN: A peer-reviewed manuscript was published in the *New England Journal of Medicine* in 1970. So that's 20 years or so ago.

> **"Many trainees in cardiology are not getting enough exposure to routine interpretation of the standard electrocardiogram from which so much information can be gained."**

REECE: *You're a world-famous cardiologist. What do you regard as the highlights of your career?*

SWAN: That's tough, but I'd say my trainees are the most important to me. It's a privilege to influence five or ten percent of the people you come in contact with. I have had about 500 trainees—50 or more who are making academic contributions in the world today. That's great. I have seven children, and I have 500 intellectual and academic children as well. All my children give me deep satisfaction.

REECE: *Has the training of cardiologists changed dramatically since the advent of invasive cardiology?*

SWAN: Yes, I would say it has, and it's regrettable in many ways. One of the great problems today is that the cardiologist is not learning well certain fundamentals of cardiology. There are two parts to that. One is neglect of the basic technique of electrocardiology. Many trainees in cardiology are not getting enough exposure to routine interpretation of the standard electrocardiogram from which so much information can be gained. They're somewhat deficient in the management of diseases such as hypertension, vascular disease, and certain cardiac aspects of pulmonary disease. We see these knowledge gaps in the subspecialty board examinations.

Too many of these doctors are already setting their sails for an invasive career, and it's too early for them to do that when they come into a training program in cardiology. My estimate is that something on the order of 1,300 to 1,700 cardiologists are trained every two years. Of those, probably 1,000 are already looking forward to a career in invasive cardiology either full time or part time. I have no objection to people who want to do that full time. They will do it very well technically and economically, and I'm not talking about fee structure. I'm talking about the time and effort spent for the benefit gained. They will do it well, if they're doing it often enough as professional invasive cardiologists.

But I am very concerned about the general cardiologist who is doing a bit of everything, including invasive cardiology, particularly when that cardiologist decides to add angioplasty. Angioplasty is technically demanding. But what concerns me is gaining the knowledge and experience that tells you when you should do it, when you should not do it, why you do it, why you do not do it. Having the experience to make those decisions is the core issue.

REECE: *How many angioplasties were done in the United States in 1988?*

SWAN: I don't have the exact number, but I would say something over 300,000.

REECE: *And how many of those do you think should have been done?*

SWAN: That's a good question, and I don't think we have any way of knowing. With the symptomatic patient, angioplasty is a tremendous step forward. Experience has shown that a favorable lesion—one that is a significant obstruction, that is single, that is proximate, that is high grade, that is concentric—is easily dilated, and those patients benefit immensely. Experience also shows that the restenosis rate is 30 percent. That's a mid figure, not a conservative figure.

When angioplasties are done on patients with minimally obstructive lesions—positive stress tests at 10 or 12 minutes or equivocal results—I question whether angioplasties are of any benefit at all. One of the other results of turning out invasive cardiologists is that we no longer have the decision makers who treat myocardial disease conservatively. Patients who have stable coronary disease do very well for a very long time with moderate medical management. We are entering an era in which more cardiologists are looking for more things to do. They will be trained in the basic techniques of angioplasty but not in the fundamentals of what not to do.

REECE: *So, to cite Parkinson's law, work will expand to meet the needs of those who are able to do it.*

SWAN: Something like that. All joking aside, the reality is that if you're going to do a crackerjack job, and if it's properly organized, a cardiologist doing angioplasty should probably do two or three a day. I don't see how people who are doing one a week, or one or two a month, can have the same degree of skill as the person who is doing angioplasties full time.

REECE: *How are we going to "properly organize" cardiovascular services in the United States?*

SWAN: I favor a current trend to establish groups that provide cardiovascular services at a given institution. I've seen this in medium to larger community hospitals where such group practices will dominate the cardiovascular needs of that institution. The group will have multiple members, and their numbers will allow them to diversify so some are competent in the field of basic cardiology, one is superb in echo, one is good at electrophysiology, several are general cardiologists, and someone else does cardiac rehabilitation. That kind of setup will allow the services to be delivered astutely and economically. Otherwise, your costs go through the roof. Physicians will be able to function within these constraints. Mayo is a perfect example of that. Mayo is considered to be cost effective, its services are well performed, and the patients seem to be satisfied. I think that's uncommon today.

"I am very concerned about the general cardiologist who is doing a bit of everything, including invasive cardiology, particularly when that cardiologist decides to add angioplasty."

REECE: *So you prefer the cardiology group approach rather than the application of cookbook criteria to independent cardiologists. Many people feel guidelines detailing who gets what are a feasible way to restrain the volume of procedures.*

SWAN: I'm a great proponent of the development of guidelines, but everything has to be adjusted to the uniqueness of the patient. That's one of my big complaints about total dependency on randomized trials. Randomized trials merely show us the activity of the human swarm, the collective. Within that collective are unique individuals, and I believe that substantive improvement in coronary disease mortality is related to the identification and superior management of those at high risk. In the swarm, these people are not identified and taken out of the population. Risk-factor modification has been important, and I also believe that identification of the high-risk individual by stress testing or other means and effective management of that individual have been enormously significant.

REECE: *Now for your Swan song. What do you see ahead for the health system of the United States? How do you see that system evolving?*

SWAN: I don't understand how it's going to evolve since we have no leadership. As a broad philosophical statement, the absence of leadership results in a degree of chaos. We have no leadership because the American people apparently don't want leadership. They don't elect people who will make decisions that are for all. That's the reality.

Now, given that, let's try to identify some of the major issues in health care delivery. First, a substantial number of our citizens have no health insurance. As far as I am concerned, that's a national disgrace. Something's got to be done about that. Second, in these days of advancing technology, we are not effective in identifying how much good we actually can do for the patient. If we knew the benefit of our treatments, then we could tell the public that we have done thus and so and as a consequence this and that has resulted. In actuality, we talk about cancer and heart disease as the great killers, the major causes of death. That's the wrong approach; many patients with cancer, heart disease, and stroke are at the end of their lives anyway because of age.

To me, there are two additional great problems of health care in the United States: first is the poor physical, intellectual, and moral health of our adolescents; it's a terrible social problem. Second is the mid-life drug plague. The dropping intellectual and motivational capacity and all of the dire effects of drugs are destroying the nation. As doctors, we find social problems become our problems. ■

CME IN MINNESOTA

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For assistance with scheduling meetings or for information on future medical meetings and CME courses at the state and national level, please contact the MMA office: 2221 University Avenue SE, Suite 400, Minneapolis, Minnesota 55414; (612) 378-1875. Information for each entry is arranged by date; name of program; primary sponsor; location; contact person.

JUNE 1989

2 **Uncertainties in Stroke Management** University of Minnesota CME; Radisson University Hotel, Minneapolis, Minnesota. CONTACT: Office of CME, Box 202, UMHC, 420 Delaware Street SE, Minneapolis, Minnesota 55455; (612) 626-5525.

2-3 **Workshops on Clinical Hypnosis: Introductory and Advanced** University of Minnesota CME; Sheraton Midway Hotel, St. Paul, Minnesota. CONTACT: Office of CME, Box 202, UMHC, 420 Delaware Street SE, Minneapolis, Minnesota 55455; (612) 626-5525.

2-3 **Lasers in General Surgery** Abbott Northwestern Hospital; Abbott Northwestern Hospital, Minneapolis, Minnesota. CONTACT: Tim Schuh, CME Office, Abbott Northwestern Hospital, 800 East 28th Street, Minneapolis, Minnesota 55407; (612) 863-5461.

8-10 **Medical Directors Training Program—3-Part Series** University of Minnesota CME; Riverwood Conference Center. CONTACT: Office of CME, Box 202, UMHC, 420 Delaware Street SE, Minneapolis, Minnesota 55455; (612) 626-5525.

9 **Eating Disorder Update: An Advanced Seminar on Anorexia Nervosa, Bulimia Nervosa, and Obesity** University of Minnesota CME; Radisson University Hotel, Minneapolis, Minnesota. CONTACT: Office of CME, Box 202, UMHC, 420 Delaware Street SE, Minneapolis, Minnesota 55455; (612) 626-5525.

9-10 **General Laser Surgery: A Hands-On Training Program** Abbott Northwestern Hospital; Abbott Northwestern Hospital, Minneapolis, Minnesota. CONTACT: Tim Schuh, CME Office, Abbott Northwestern Hospital, 800 East 28th Street, Minneapolis, Minnesota 55407; (612) 863-5461.

12-16 **Team Management of Diabetes Mellitus** International Diabetes Center; International Diabetes Center, Park Nicollet Medical Foundation, Minneapolis, Minnesota. CONTACT: Cindy Poppitz, International Diabetes Center, 5000 West 39th Street, Minneapolis, Minnesota 55416; (612) 927-3393.

13 **13th Annual Hitchcock Society Surgical Symposium** Hennepin Faculty Associates; Hennepin County Medical Center, Minneapolis, Minnesota. CONTACT: Eugenia Kassar, HCMC, Hennepin Faculty Associates, 701 Park Avenue, Suite 4220, Minneapolis, Minnesota 55415; (612) 347-2075.

14-17 **53rd Annual Course—Progressive Hepatic, Biliary, and Pancreatic Surgery** Department of Surgery, University of Minnesota Medical School; Willey Hall, University of Minnesota, Minneapolis, Minnesota. CONTACT: Office of CME, Box 202, UMHC, 420 Delaware Street SE, Minneapolis, Minnesota 55455; (612) 626-5525.

16 **Controversies in Primary Care** Hennepin Faculty Associates; Hennepin County Medical Center, Minneapolis, Minnesota. CONTACT: Eugenia Kassar, Hennepin Faculty Associates, 701 Park Avenue, Suite 4220, Minneapolis, Minnesota 55415; (612) 347-2075.

17 **2nd Annual Star of the North State Games Sports Medicine Symposium** Governor's Council on Physical Fitness and Sport; Burnsville Senior High School, Burnsville, Minnesota. CONTACT: Robert Johnson, M.D., 5 West Lake Street, Minneapolis, Minnesota 55408; (612) 824-1647.

20 **W. Krivit Scientific Symposium** University of Minnesota CME; Radisson University Hotel, Minneapolis, Minnesota. CONTACT: Office of CME, Box 202, UMHC, 420 Delaware Street SE, Minneapolis, Minnesota 55455; (612) 626-5525.

21-23 **Topics and Advances in Pediatrics** University of Minnesota CME; Radisson University Hotel, Minneapolis, Minnesota. CONTACT: Office of CME, Box 202, UMHC, 420 Delaware Street SE, Minneapolis, Minnesota 55455; (612) 626-5525.

22-24 **Orthopaedic Surgery: Spine** University of Minnesota CME; Hyatt Regency Hotel, Minneapolis, Minnesota. CONTACT: Office of CME, Box 202, UMHC, 420 Delaware Street SE, Minneapolis, Minnesota 55455; (612) 626-5525.

22-24 **Acupuncture for Pain Control** Hennepin Faculty Associates; Hennepin County Medical Center, Minneapolis, Minnesota. CONTACT: Eugenia Kassar, Hennepin Faculty Associates, 701 Park Avenue, Suite 4220, Minneapolis, Minnesota 55415; (612) 347-2075.

23-24 **Gastrointestinal Laser Surgery** Abbott Northwestern Hospital; Abbott Northwestern Hospital, Minneapolis, Minnesota. CONTACT: Tim Schuh, CME Office, Abbott Northwestern Hospital, 800 East 28th Street, Minneapolis, Minnesota 55407; (612) 863-5461.

25-27 **Homecare and AIDS** University of Minnesota CME; Scanticon Conference Center, Plymouth, Minnesota. CONTACT: Office of CME, Box 202, UMHC, 420 Delaware Street SE, Minneapolis, Minnesota 55455; (612) 626-5525.

26-27 **Symposium on the Engineering of Computer-Based Medical Systems** University of Minnesota CME; Minneapolis, Minnesota. CONTACT: Office of CME, Box 202, UMHC, 420 Delaware Street SE, Minneapolis, Minnesota 55455; (612) 626-5525.

26-30 **Team Management of Diabetes Mellitus** International Diabetes Center; International Diabetes Center, Park Nicollet Medical Foundation, Minneapolis, Minnesota. CONTACT: Cindy Poppitz, International Diabetes Center, 5000 West 39th Street, Minneapolis, Minnesota 55416; (612) 927-3393.

Jun 30-Jul 1 **Interventional Radiology** University of Minnesota CME; Radisson University Hotel, Minneapolis, Minnesota. CONTACT: Office of CME, Box 202, UMHC, 420 Delaware Street SE, Minneapolis, Minnesota 55455; (612) 626-5525.

JULY 1989

3-14 **Resuscitation Course** Hennepin Faculty Associates; Hennepin County Medical Center, Minneapolis, Minnesota. CONTACT: Eugenia Kassar, Hennepin Faculty Associates, 701 Park Avenue, Suite 4220, Minneapolis, Minnesota 55415; (612) 347-2075.

10-14 **Team Management of Diabetes Mellitus** International Diabetes Center; International Diabetes Center, Park Nicollet Medical Foundation, Minneapolis, Minnesota. CONTACT: Cindy Poppitz, International Diabetes Center, 5000 West 39th Street, Minneapolis, Minnesota 55416; (612) 927-3393.

13-14 **Advanced Trauma Life Support** Hennepin Faculty Associates; Hennepin County Medical Center, Minneapolis, Minnesota. CONTACT: Eugenia Kassar, Hennepin Faculty Associates, 701 Park Avenue, Suite 4220, Minneapolis, Minnesota 55415; (612) 347-2075.

17-21 **Team Management of Diabetes Mellitus** International Diabetes Center; International Diabetes Center, Park Nicollet Medical Foundation, Minneapolis, Minnesota. CONTACT: Cindy Poppitz, International Diabetes Center, 5000 West 39th Street, Minneapolis, Minnesota 55416; (612) 927-3393..

21-22 **Cutaneous Laser Surgery** Abbott Northwestern Hospital; Abbott Northwestern Hospital, Minneapolis, Minnesota. CONTACT: Tim Schuh, CME Office, Abbott Northwestern Hospital, 800 East 28th Street, Minneapolis, Minnesota, 55407; (612) 863-5461.

Jul 31-Aug 4 **Team Management of Diabetes Mellitus** International Diabetes Center; International Diabetes Center, Park Nicollet Medical Foundation, Minneapolis, Minnesota. CONTACT: Cindy Poppitz, International Diabetes Center, 5000 West 39th Street, Minneapolis, Minnesota 55416; (612) 927-3393.

AUGUST 1989

11-12 **Vascular Laser Surgery: A "Hands-On" Training Program** Abbott Northwestern Hospital; Abbott Northwestern Hospital, Minneapolis, Minnesota. CONTACT: Tim Schuh, CME Office, Abbott Northwestern Hospital, 800 East 28th Street, Minneapolis, Minnesota 55407; (612) 863-5461.

11-13 **Arrowhead Region Anesthesia Seminar** Miller Dwan Medical Center; Holiday Inn, Duluth, Minnesota. CONTACT: Jim Anderson, CRNA, Miller Dwan Medical Center, 502 East 2nd Street, Duluth, Minnesota 55805; (218) 720-1121.

25 **Second Annual Neurology Conference** Hennepin Faculty Associates; Hennepin County Medical Center, Minneapolis, Minnesota. CONTACT: Eugenia Kassar, Hennepin Faculty Associates, 701 Park Avenue, Suite 4220, Minneapolis, Minnesota 55415; (612) 347-2075.

Health One Continuing Medical Education

June 5
"Rheumatology Update" by Paul Waytz, M.D. – 6:30 p.m. – Health Central of Owatonna

June 7
Practice Management Seminar – "Buy/Sell and Retirement Planning for Physicians" – 6:00-8:00 p.m. United/Children's Hospital Conference Center, St. Paul. Presented by James A. Weichert, Touche Ross

June 8
New Ulm Outreach

June 16
"Controversies in Primary Care" Co-Sponsored by Metropolitan-Mount Sinai Medical Center and Hennepin County Medical Center, Pillsbury Auditorium. Featuring luncheon keynote presentation by Rick Bay, Athletics Director, University of Minnesota.

The seminar will be divided into four topic areas:

- Gastroenterology
- Hypertension
- Breast cancer
- Sports medicine

July 6-9
Physician Leadership Conference – Grand View Lodge, Brainerd, MN

July 13
New Ulm Outreach

For further information, contact
Beth Murphy, CME Manager,
Medical Affairs Division, Health One.
(612) 574-7716.

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Family Physician needed to join group of five family physicians in St. Peter, Minnesota, population 9,000, located one hour south of Minneapolis. Contact: Curt Stolee, M.D., or D.A. Nygard, Administrator, St. Peter Clinic, Ltd., 622 Sunrise Drive, St. Peter, Minnesota 56082; (507) 931-2110. (R)

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Orthopedic Conference: New Perspectives in Pediatric Orthopedics, An Update: Date: October 5-7, 1989. Location: Landmark Resort in Egg Harbor, Wisconsin. Speakers: Alan L. Breed, M.D., Madison, WI; Alvin H. Crawford, M.D., Cincinnati, OH; Paul Esposito, M.D., Omaha, NE; John J. Hugus, M.D., Marshfield, WI; Walter W. Huurman, M.D., Omaha, NE; F. Stig Jacobsen, M.D., Marshfield,

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Large Family Practice Group of 35 physicians looking for eight additional family practitioners. We are located in recreational area in the southeast metro area of the Twin Cities. Contact: Maureen Arend, Regina Medical Complex, Hastings, Minnesota 55033; (612) 437-3121. 2-6/89

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Family Physician to join a three-physician practice. Beautiful community bordered by the North Shore of Lake Superior and the Boundary Waters Canoe Area. Negotiable income with incentive. Excellent benefits. Flexible hours. Available summer, 1989. Send CV with references to: Cook County Community Clinic, Grand Marais, Minnesota 55604; (218) 387-2330. 3-6/89

Family Physician, BC/BE wanted to join three board-certified MDs in well-established, expanding group practice. Enjoy a progressive, rural city within easy reach of St. Cloud and Minneapolis. Contact: Dr. Jim Mohs, Melrose Clinic, 603 West Main Street, Melrose, Minnesota 56352; office: (612) 256-4228, home: (612) 256-3488. (R)

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Family Practice Clinic is seeking a BC/BE family practitioner to join its two clinics located in the northern suburbs of Minneapolis and St. Paul. Assume a well-established and expanding general practice. Benefit package includes paid malpractice, health, dental, life, and disability insurance. Also, competitive salary, retirement plans, and liberal vacation. Please contact: Dr. Gerald Jensen, 3900 Stinson Boulevard NE, Minneapolis, Minnesota 55421. Phone: (612) 788-9251. 1-6/89

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Family Physician needed to join group of three full-time physicians in rapidly growing community health center. Must do obstetrics. Competitive salary and benefits. Contact: Craig Redfern, D.O., or Beverley Hawkins, Ph.D., Model Cities Health Center, 430 North Dale Street, St. Paul, Minnesota 55103; (612) 222-6029. (R)

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Ob/Gyn, Internal Medicine, BE/CE position is available at the Fairmont Medical Clinic, P.A., in Fairmont, Minnesota. The clinic is a progressive 12-person multispecialty group in southern Minnesota. The clinic and adjoining hospital (74 beds) are currently under major expansion. Fairmont is a community of 12,000 (trade area of 70,000) built around a chain of five lakes. First-year salary, paid malpractice, and benefit package. Contact: Dennis Sternke, M.D., Fairmont Medical Clinic, P.A., PO Box 800, Fairmont, Minnesota 56031; (507) 238-4263. 3-8/89

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JULY 1989

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Health Care Quality
How We Measure, Define, and Refine It

Cover Illustration

QUALITY ASSURANCE Quality assessment, outcome measures, input measures, utilization review, data evaluation. . . . These are all terms frequently arising in medical circles these days in efforts to quantify an elusive concept. The variety of these terms reflects the complexity of defining how we provide our patients with the best care possible, which, in today's world of escalating health care costs, is proving to be more and more difficult.

Cover illustration by Lynne Menturweck of St. Paul.

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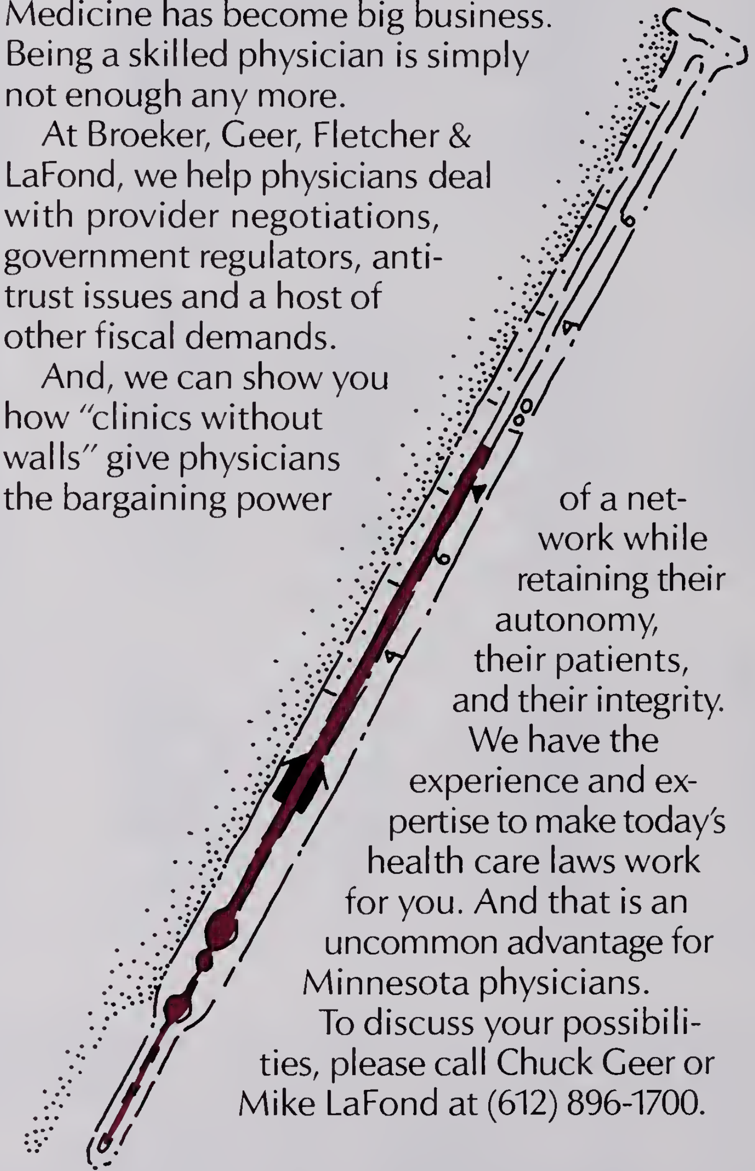

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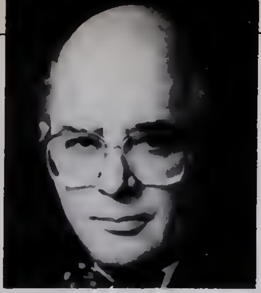

RICHARD L. REECE, M.D.

EDITOR'S NOTEBOOK

Why Physicians are Skeptical about 'Quality' Talk

I undertake this editorial with reluctance. Why? Because I've noticed when a government policymaker, a county medical society official, a hospital medical director, a state medical examiner, or a health plan executive starts prattling about the need for quality in health care, physicians usually ignore what is being said, become defensive, or dismiss the speaker as someone who knows nothing about life in the clinical trenches.

Why should a medical editor evoke a different response? I doubt that I will. Indeed, I will wager at this point of my editorial, I already have lost 50 percent of potential readers.

Why Physicians are Skeptical about Quality

So why are physicians so reluctant to hear about, think about, or even read about quality? You probably have your thoughts. Here's my list of reasons:

► Programs for improving quality generally come in the form of exhortations from managers of organizational bureaucracies. In a sense, physicians think of these programs as group therapy designed for sick organizations. Yet most physicians don't belong to large organizations. Not yet anyway. In America, we still have fewer than 100 medical groups of 100 or more physicians. Therefore, quality improvement programs are irrelevant to most practicing physicians.

► For all practical purposes, the only functioning organization of physicians at the community level is the hospital medical staff. A hospital medical staff is a collegial organization, where everyone is equal but some are more equal than others, depending on specialty. Physicians still care more about what their peers think than what quality "experts" preach. In a collegial organization, talk about quality still comes across as a judgmental exercise—a means of reprimanding, denying privileges, or spotting the bad actors.

► Quality talk is dull. Quality theory is full of jargon; it is abstract; it involves teamwork of multiple layers of an organization; and it entails getting all the little details right over a period of years. There is simply nothing dramatic or inspiring, or for practicing physicians, anything especially rewarding, about it.

The 'Bad Apple' Theory of Quality Improvement

So far, the quality movement has been based on the "Bad Apple" theory of quality, i.e., if you can only spot the bad apples among doctors and cull them out, or divert patients away from them, or humiliate them, all will be well.

Here is Donald Berwick's description of this approach (Berwick, an M.D., is vice president for quality of measurement for the Harvard Community Health Plan): "Call it the Theory of Bad Apples, because those who subscribe to it believe that quality is best achieved by discovering bad apples and removing them from the lot. The experts call this mode "quality of inspection," and in the thinking of the activists for quality in health care it predominates under the guise of "buying right," "recertification," or "deterrence" through litigation. Such an outlook implies or establishes thresholds for acceptability, just as the inspector at the end of an assembly line decides to accept or reject damaged goods. . . .The Bad Apple is to blame. The cause of trouble is people—their venality, incompetence, or insufficient caution."

A Formula for Failure

This Bad Apple attitude, of course, is a formula for failure, because it is expensive, inefficient, and alienating. It makes enemies of those whose performance you seek to better. This attitude is why PROs have failed so badly, why HHS Inspector General Kusserow's searches for fraud and abuse have generated little but hostility, why Rep. Pete Stark's bill to outlaw physician entrepreneurship will fail, and why blame-shifting to doctors for performing "unnecessary" procedures will be an exercise in futility.

Why the Game Isn't Fun

Berwick continues: "The game is not fun, of course; the workers are afraid, angry, and sullen, but they play, nonetheless. When quality is pursued in the form of a search for deficient people, those being surveyed play defense. They commonly use three tactics: kill the messenger (the foreman is not their friend, and the inspector even less so); distort the data or change the measurements (whenever possible, take control of the mechanisms that may do you harm); and if all else fails turn somebody else in (or divert the foreman's attention)."

Right on Target

I have quoted Berwick at length because he's right on target. The trouble with the quality rhetoric and action to date has been that it's been based on the Bad Apple Theory.

Consider, if you will, the PRO movement (and the nasty letters the PRO sends out to chastize Bad Apples and to threaten them with loss of the right to see Medicare patients); consider those Medicare letters that go to patients saying their doctors have performed "unnecessary" tests; consider HCFA's lists of mortality statistics of hospitals, published in local newspapers; consider the harsh actions of the Massachusetts Board of Registration and its bounty system for culling out a certain number of "bad" physicians each year. Any system that seeks to punish "outliers" and avoids focusing on typical practicing physicians to help them learn is destined for destruction. "Outlier" systems have not worked, do not work, and will not work.

Besides not working, the Bad Apple Theory is time consuming, bureaucratic, antagonizing, removed from clinical reality, retrospective, punitive, and irrelevant. In the end, apple dunking destroys the system it set out to improve.

The Theory of Continuous Improvement

So what is the answer? The answer, according to the visionaries, is the Theory of Continuous Improvement. Here is Berwick again: "The focus is on continuous improvement throughout the organization through constant effort to reduce waste, rework, and complexity. When one is clear and constant in one's purpose, when fear does not control the atmosphere (and thus the data), when learning is guided by accurate information and sound rules of inference, when suppliers of services remain in constant dialogue with those who depend on them, and when the hearts and talents of all workers are enlisted in the pursuit of better ways, the potential for improvement is nearly boundless."

No doubt Berwick is right. The Bad Apple policy is bad; and continuously polishing up ordinary apples is good. But continuous improvement still implies an organizational effort, and we physician's don't yet have the organizational structure or the data to help ourselves incrementally improve. But efforts are being made—with quality assurance programs in hospitals, with standard-setting studies by state and national medical societies, and with the emerging field of outcome data collection.

> **"Any system that seeks to punish 'outliers' and avoids focusing on typical practicing physicians to help them learn is destined for destruction."**

Minnesota Medicine's Part

And at *Minnesota Medicine,* we are doing our part. In this issue, we have an article on efforts underway throughout the state to determine if Minnesota's physicians are providing quality care; we have an interview with Mark Chassin, M.D., of Value Health Sciences, Inc., a former Rand Corporation investigator who helped to develop a software program that Blue Cross and Blue Shield of Minnesota is introducing to educate physicians statewide about the "appropriateness" criteria for ten operations; and we have an interview with Floyd Loop, M.D., chairman of the Department of Cardiovascular Surgery at the Cleveland Clinic, on that organization's efforts to establish a program of continuous improvement. ■

Reference

Berwick DM: Continuous Improvement as an Ideal in Health Care, N Engl J Med, 320:53-56, 1989.

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The Quantification of Quality: The Cleveland Clinic Approach

REECE: *Dr. Loop, you're chairman of the Department of Thoracic and Cardiovascular Surgery at the Cleveland Clinic, a 500-physician multispecialty group. In addition, you're chairman of the "quantification of quality" committee. When did the Cleveland Clinic become interested in the quantification of quality? When did you start that program?*

LOOP: About three years ago.

REECE: *And why did you start it?*

LOOP: It was begun because quality in medicine was emerging as a big issue. More and more articles were appearing in the literature. We wanted to find out more about how to quantify quality for two reasons: one, to make ourselves better; and two, to distinguish us from our competitors.

REECE: *And how have you gone about quantifying quality?*

LOOP: For the first few months, we talked about quality. Then we developed a strategy about how to approach the measurement of quality in a hospital. We realized no consensus existed about how to measure quality in health care or how to compare one hospital with another. We slowly came to agreement about how we would approach defining and measuring quality in our institution.

REECE: *And what was that approach?*

LOOP: First, we reviewed our hospital operations. If you look at the structure, process, and outcome components of quality, structure traditionally means the facility's personnel and equipment. But realistically, the operations of the institution constitute the structure. The operations affect all the processes and, consequently, the outcome of health care delivery.

So we began by trying to constructively assess the operations of the hospital. It was our opinion that relationships between the

Loop *to page 413*

FLOYD LOOP, M.D.

I became aware of the Cleveland Clinic's quality program about a month ago, when I was visiting with Richard Farmer, M.D., chairman of the Department of Medicine, in Cleveland. Dr. Farmer expressed enthusiasm about the program. When I wanted to learn more, Dr. Farmer referred me to Dr. Floyd Loop, who has headed the clinic's "quantification of quality" effort for the last two and one-half years.

Dr. Loop is one of the leading cardiovascular surgeons in the world. Indeed, for almost 20 years, he and other Cleveland Clinic surgeons have performed as many coronary bypass operations as any group of surgeons in the world. But Dr. Loop's interests extend beyond heart surgery. He and the rest of his quality committee are engaged in enhancing their institution's quality across all departments and across all levels of personnel.

Why such a broad-based concern with quality? It's quite simple, says Dr. Loop: "We wanted to find out more about how to quantify quality for two reasons: one, to make ourselves better; and two, to distinguish us from our competitors."

I've read somewhere that the chief job of a leader is to do something that makes an organization distinguished and distinguishing. By taking the quality bull by the horns and wrestling it to the ground, Dr. Loop and his colleagues aim to make the Cleveland Clinic distinguished by its excellence and to have that excellence distinguish it from its competitors.

As Dr. Loop says in this interview, the initiative for a quality program that engages everybody within the organization has to come from within and from the top. No outside force can impose quality. At the Cleveland Clinic, a doctor-dominated multispecialty clinic of 500 physicians, this means physicians themselves have to be obsessed with quality and have to lead the charge toward discussing quality, defining it, measuring it, appraising it, devoting resources to it, and improving it. Unless physicians take quality seriously, nobody will.

A New Breed of Physician and a New Brand of Cost Containment

REECE: *Dr. Chassin, you're in town to explain to Minnesota medical and health care audiences what Value Health Sciences, Inc., your company, is going to do with Blue Cross and Blue Shield of Minnesota. Could you more fully explain your purpose for being here?*

CHASSIN: Yes. Blue Cross and Blue Shield of Minnesota has contracted with Value Health Sciences to install our precertification system in Minnesota, starting July 1. Our Medical Review System applies scientifically developed appropriateness criteria to elective procedures before they are done to discriminate appropriate uses of those procedures, immediately certify them as medically necessary, and focus the resources of the utilization review system on cases that appear to lack clinical justification, so that they can be identified and selectively discouraged.

MARK CHASSIN, M.D.

This may be the most important interview I've conducted for Minnesota Medicine. *Its contents signal a significant turn in the course of managed care—the shift from concentrating on price to focusing on appropriate practices, and even more important, the assurance to payers that they are getting the right bang for their buck.*

Furthermore, the interview brings to light another watershed event—the mating of clinical research with computer software so that expert knowledge can be brought to bear on a clinical event before it happens.

Finally, the interview shows how the use of computer software to educate clinicians about the indications for a procedure puts the emphasis of quality medicine where it ought to be—on prospective, continuous improvement rather than on retrospective culling out of bad apples.

The subject of the interview is Mark Chassin, M.D., a new breed of physician. Members of this new breed are well-educated (Dr. Chassin has degrees from Harvard College, Harvard Medical School, and the Kennedy School of Government at Harvard); they are steeped in many disciplines (Dr. Chassin understands medicine, statistics, government policymaking, and computer systems); and they have sampled many careers (Dr. Chassin has been deputy director of the PSRO program, an emergency room physician, a Rand Corporation researcher, and now an entrepreneurial executive in a software company). Perhaps this varied background explains why this new breed is so adroit at making the leaps from rhetoric, to research, to reality.

In any event, the appropriateness review software package that Dr. Chassin and his colleagues have designed and are now introducing into clinical medicine via a private utilization review company in Boston, a national HMO in Pennsylvania, and three Blue Cross and Blue Shield organizations in Delaware, Maryland, and Minnesota, is a major happening in the maturation of managed care. This package brings to the physician's office a logic system for sorting out the indications for surgical procedures. The system is said to be fast and efficient, but only time, cost savings, and clinician judgment will tell if it works in the real world.

REECE: *Sounds like a challenging task. To put all of this in context, could you describe your background and how this system evolved?*

CHASSIN: I come to this process with several different perspectives. I was the deputy director of the PSRO program at the Health Care Financing Administration for two years. I practiced emergency medicine for 12 years. I conducted health services research at the Rand Corporation for nine years. And most recently, out in the commercial world, I am trying to improve medical practice in the community.

So I've been a regulator, I've been regulated, and I've been evaluating the impact of utilization review and health services management on health care. We're about to try to transplant the appropriateness assessment methodology that we developed at Rand into the real world. Our Rand appropriateness measurements indicated that 17 to 32 percent of major procedures

continued

were being performed in a broad community Medicare population for inappropriate reasons. We want to take that appropriateness assessment methodology and apply it to real-world situations.

We have developed appropriateness criteria using a lengthy and time-consuming process that involves reviewing the medical and scientific literature, documenting what's known about the effectiveness of procedures, combining that with expert clinicians' judgment, leavening that medical research with our clinical expertise, and coming up with a set of clinically detailed appropriateness criteria. This allows us to screen cases as they are proposed, identify the cases that are appropriate, approve them immediately, and identify those that need further review.

REECE: *Tell us about your consensus panels of experts. I know these panels are an integral part of this process. How do you select those panels?*

CHASSIN: Each panel consists of nine physicians who are selected to represent a broad range of specialties, from family practice, internal medicine, invasive and noninvasive cardiology (in the case of some of the basic cardiology procedures), and surgery. We have a broad geographic representation, and we balance academic and private practice. Many of these panels have included some of the leading researchers in their fields.

As part of this process, we mail to each panelist a long list of indications for each procedure, up to a thousand indications for some procedures, very specifically defining circumstances under which the procedures might be done. They rate the appropriateness of each one of those indications and send the ratings back to us. We analyze them and produce reports, then convene the physicians in a meeting to look at each indication, concentrating on the ones over which they disagree.

A lot of disagreements are resolved at this level, but we don't force agreement. The second round of rating takes place after that clinical discussion. The results of that second round go into our system as appropriateness criteria.

REECE: *If I may summarize: to establish the software for appropriateness review, you select the procedure, review the literature, obtain clinician input, put together the clinician consensus panels, and develop a catalogue of indications. Out of this comes a carefully crafted software package—the central nervous system of your company. Tell us how that central nervous system is used in practice, or how it will be used in Minnesota.*

"We strongly believe that even criteria as detailed as ours still cannot hope to cover the universe of diversity that patients represent."

CHASSIN: It's similar to other ways of precertifying hospitalizations. A physician will call Blue Cross and Blue Shield if his or her patient is to undergo one of the procedures that our system precertifies. That initiates the certification process. A utilization review nurse at Blue Cross and Blue Shield will then ask the physician or the physician's office questions about the procedure. The nurse may then call the patient, if the patient is the most appropriate source of information, for some of the key data needed to determine appropriateness. The software guides that nurse to efficiently ask the questions that will get to the reason for doing that procedure as quickly as possible.

After the nurse completes this five- or 10-minute conversation with the patient and another five minutes or 10 minutes with the physician or the office nurse, the software will tell the utilization review nurse whether or not there's enough information to determine that the procedure is appropriate and that it can be certified immediately, or whether it's inappropriate and needs further review. At that point, every potentially inappropriate case goes to a physician for further review. We strongly believe that even criteria as detailed as ours, with over 1,500 indications for hysterectomy, for example, still cannot hope to cover the universe of diversity that patients represent.

REECE: *This appropriateness review system will be introduced in July, and 10 procedures have been selected for review during this initial phase. What are those 10?*

CHASSIN: Coronary angiography, carotid endarterectomy, upper GI endoscopy, laminectomy, knee arthroscopy, tonsillectomy, tympanostomy tube insertion, adenoidectomy, carpal tunnel release, and hemorrhoidectomy.

REECE: *And there will be a six-month phase in?*

CHASSIN: That's right. During the first six months there will be no payment or benefit denials that result directly from the medical necessity determination.

REECE: *I understand you've been working with Blue Cross in Minnesota for several months.*

CHASSIN: That's correct.

REECE: *And you've been impressed by their determination to make your system work?*

CHASSIN: I have indeed.

REECE: *Have you met with any Minnesota physicians in a formal setting to discuss the introduction of this system in Minnesota?*

CHASSIN: Yes. We met with the Minnesota Medical Association's Ad Hoc Committee on Quality Assessment and Data Utilization, and we met with two physician groups that were invited by Blue Cross to hear our presentations. I have found that the physicians who came to these meetings and others who have participated in the program are extremely well informed about quality of care problems and about health care management techniques available to assess these issues, and they are positively disposed to helping make this work, both for their patients and for themselves.

REECE: *Have you met any organized resistance from doctors who complain about committees running medicine, computers practicing medicine, or unnecessary intrusion into their practices? If so, how do you handle those kind of heated, and sometimes emotional, objections?*

CHASSIN: Some physicians do react to this kind of review with an unconsidered response that this is cookbook medicine, that it's an intrusion into "my relationship with my patient." I don't believe it. This system is a way of connecting physicians with the opinions of national experts. The opposition is understandable; there is a kernel of truth in the objection to any sort of practice guidelines as being cookbook medicine. Physicians resist being forced to manage patients according to recipes that don't allow them to individualize treatment plans or diagnostic evaluations. We're sensitive to this criticism, and that's why a physician reviews all cases deemed potentially inappropriate by the software. The reviewing physician contacts the treating physician specifically to determine whether there are extenuating circumstances in that patient's case that would make the procedure appropriate, despite the fact that it failed the criteria. We have been careful in implementing this system. We pay strict attention to the need to make the system flexible, not to force physicians into rigid practice styles that don't take individual patient variation into account.

REECE: *Doctors are protective of the physician-patient relationship. You said earlier that a Blue Cross nurse will ask the patient direct questions.*

CHASSIN: That's right.

REECE: *But isn't that a violation of the physician-patient relationship?*

CHASSIN: No, not really. Sometimes the physician doesn't have all the information we need. We have found in our research and in our ongoing implementation of the system, that the patient is really the best source of accurate information about certain kinds of data—compliance information and functional impairment data, for example. The way we collect that data, however, is very objective. We simply ask patients what their symptoms are and how they are being functionally limited. We never question the physician's judgment that a procedure is necessary. It is merely an objective exercise in collecting information. We never tell the patient that the procedure has, in fact, failed the criteria. The patient is told that additional information from the physician is necessary. The physician always has the first chance to contact the patient, even if the procedure is determined to be medically unnecessary.

"Our goal is to reach agreement with the treating physician that a conservative course is appropriate and can be pursued."

REECE: *Is Blue Cross and Blue Shield of Minnesota the first health plan in the country to introduce this on a broad scale?*

CHASSIN: Blue Cross and Blue Shield of Minnesota is among the first three organizations to implement the medical review system. It will be the first organization to implement the full system.

REECE: *Where are the other two locations?*

CHASSIN: Private Health Care Systems in Boston installed the system in June. A large HMO in Pennsylvania, U.S. Health Care, will begin using the program in the early part of July. Blue Cross and Blue Shield plans in Maryland, Delaware, and California will be trained in the same session as Blue Cross and Blue Shield of Minnesota. Several others will follow later this summer.

REECE: *So these must be exciting times for Value Health Sciences.*

CHASSIN: Very exciting.

REECE: *And you look on this as a systematic and purposeful way to improve the quality of American medicine?*

CHASSIN: Absolutely. I think this approach will allow us to improve quality by reducing patient exposure to the unnecessary risks that attend inappropriate procedures and to save money at the same time, if we are sensitive to the legitimate concerns of physicians and patients.

REECE: *And will it help to reduce malpractice?*

CHASSIN: I'm convinced that the use of standards can have a positive influence on liability.

REECE: *Who judges whether this should be extended beyond six months? What hurdles do you have to jump?*

CHASSIN: The full extent of the evaluation has not been completed, but I can paint an outline of it. One component is the cost effectiveness; that will be determined by looking at the number of cases that come through the system and the number of cases that are identified as inappropriate at the end of the review process. We expect to do that on a procedure-by-procedure basis to determine what makes sense to include in an ongoing review system and to understand how our system is working.

So the six-month break-in period helps us evaluate our system and helps us figure out what makes sense for Minnesota. It may be, for example, that inappropriate tonsillectomies just aren't performed in Minnesota. If we find one percent or less than one percent inappropriate cases of a particular procedure, assuming we have enough volume to make a statistically valid conclusion, then there's no point in including that in an ongoing system, and we can use those resources to look at other procedures.

The other component is how the system works operationally—working the bugs out of the queuing process, making sure that nobody is kept waiting on the phone, that physicians are able to give us the information without spending half an hour—a whole host of operational issues like that.

We may not be able to evaluate the cost effectiveness immediately because of the sentinel effect: After the system has been in place for a time, physicians will understand what the appropriate criteria are and will be likely to stop proposing procedures that aren't appropriate.

REECE: *You've said that at least 10 percent of the cases will be inappropriate. You've told us the doctor will always know first if a procedure is considered inappropriate, and if disagreement still persists, there will be an appeals process. I hope you handle these "inappropriate" cases more diplomatically than the U.S. government, which sends out letters to patients saying their treatment was "unnecessary."*

> **"This system is a way of connecting physicians with the opinions of national experts."**

CHASSIN: We won't have that problem. In the first place, our system operates prospectively, so we are never commenting on the appropriateness of past treatments. Also, our experience shows that physicians react positively. We currently do physician review ourselves for our Aetna clients. In the last three or four months, we've done physician review on several hundred cases, and we have had about eight appeals. In the vast majority of the cases we have reviewed, where we determined the procedure was inappropriate, the treating physician has agreed with our physician reviewer on a more conservative course of management. That's really the goal of the physician review process. The system identifies the clinical reasons why the procedure looks medically inappropriate. If there are no extenuating circumstances, then there is a treatment alternative. It may be that the physician hadn't adequately considered the alternative. Our goal is to reach agreement with the treating physician that a conservative course is appropriate and can be pursued.

REECE: *Before the fact.*

CHASSIN: Before the invasive procedure is done. Absolutely. ■

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Reflections

Robert O. Fisch, M.D.

It was 25 F below zero in Minneapolis when the limousine picked me up at the University of Minnesota Hospital to take me to the airport. In Tampa, when I arrived there three hours later, it was 76 above. At the baggage check-out, my luggage seemed to be perspiring with the 100-degree difference in temperature as the frost melted out.

I stayed at the beautiful Florida home of good friends and colleagues to escape the cold Minnesota winter. Like water flowing over melting ice, thoughts came to me at the colorful, sunny beach.

Sitting on a bench, I looked at the mysterious night sky. Its vastness opens the imagination to contemplate infinity. Both close and distant stars were visible to the naked eye—all just a microscopic fraction of the unfolding, endless universe. The star "closest" to earth (excluding our sun) is three light years away. A light year is 6,000,000,000,000 (6 trillion) miles. The "closest" galaxy visible to the naked human eye is Andromeda—700,000 light years away, or 4,200,000,000,000,000,000 miles.

One can experience acrophobia (fear of height) from just a few feet above the ground, or looking out through the window of a skyscraper, or from the top of a national park overlook. Yet we experience no dizziness, no space phobia, when contemplating the peaceful, distant, vast night sky. A sheer deception of the visual interpretation by the brain, or just a means of protection from the incomprehensible reality?

§

A pelican smoothly glides above the waves watching for fish, then suddenly dives in the water and comes up swallowing its catch. A brilliant flier and masterful fisher. A retired physician fishes on the dock, occasionally catching small fish. A pelican sits close by for hours, waiting patiently. If the fisherman accidentally drops a fish, the pelican picks it up immediately. These birds, though concerned about being caught themselves, choose waiting rather than fishing. At their own risk, they take the easy way. If even the talented prefer to be opportunistic, how can we expect motivation from the less talented who received something for nothing? A lesson to be learned.

§

Looking through the transparent blue water, I notice a school of fish: the crowd is protection, security. Existence is average, safe; rewards are minimal. Swimming alone is a risk, an adventure; the reward might be prosperity—or death. It's a choice to make. If one fish on the side swims away and doesn't return, the others try to

Illustration by Kathleen Berntson

ignore it. (It hasn't happened to me, has it? Or will it?) They swim away, jittery, without ever looking back.

§

At a shiny, outdoor, heated swimming pool, old wrinkled bodies in bikinis try to exercise and fight the inevitable—aging and death—as in a scene from a Fellini movie. Their inability or unwillingness to accept it opens the door to unhappiness. At each age, beauty comes from different sources. Tight skin, muscle, and body beauty are not for most of the old ones. Wisdom and patience are rarely for the young ones. We have to find the satisfactions of each age and time.

Health is a balance of the physical, spiritual, and environmental—a combination of physical and emotional well-being; an index of the mind based upon satisfaction with ourselves, our relationships with others, and their reflection upon us; a feeling of worthwhileness regarding human relationships, work, and recreation; a joyful experience to be aware of the beauties surrounding us and opportunities given to us; a rare gift to be aware, free, and part of the universe; the acceptance of its greatness and, at the same time, its unimportance.

Each stage of life or development brings strength and weakness, alternatively. Inner beauty, relationships with others and with nature, acquisition of knowledge and the child-like ability to wonder and to enjoy special moments—these are within our reach through all ages. Let those things go that are not for us anymore. Something new replaces them, and what is left keeps us in balance. We should try to hold onto what is still within reach of us, and it will stay with us as long as we think and feel; then we can let go, without much remorse, what is not attainable any longer.

§

I brought my Florida friends a picture I had painted. Painting is an immersion in nature, an ultimate ecstatic experience of creation. Facing the empty canvas is an exciting sensation, like facing the night sky—thrilling moments for the mind on contemplating infinite possibilities.

The world is a harmonious flow of forms and shapes and is ruled by the elegance of physical laws. Painting is merely a continuity of lines, shapes, colors, materials, and energy—the harmonic flow expressed visually. Painting is similar to the growth and development that can be seen in children. It is a special branch of genetics.

In painting, I try to express how life could be, rather than what it is. Colors are the notes of the visual symphony; they are the alphabet of joy. Someone asked me how much time a painting takes. It has taken me 63 years of life experience, and I am merely a part of the continuity of another million years. Painting is a reflection of time.

Robert Fisch is a professor of pediatrics at the University of Minnesota.

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In the depressed and anxious patient

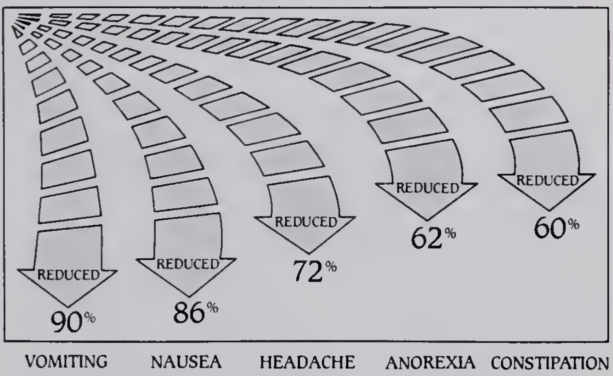
See Improvement In The First Week[1]...

And The Weeks That Follow

- 74% of patients experienced improved sleep after the first *h.s.* dose[1]
- First-week reduction in somatic symptoms[1]

Caution patients about the combined effects of Limbitrol with alcohol or other CNS depressants and about activities requiring complete mental alertness, such as operating machinery or driving a car. In general, limit dosage to the lowest effective amount in elderly patients.

Percentage of Reduction in Individual Somatic Symptoms During First Week of Limbitrol Therapy*



*Patients often presented with more than one somatic symptom.

Limbitrol®

Each tablet contains 5 mg chlordiazepoxide and 12.5 mg amitriptyline (as the hydrochloride salt) Ⓘⓥ

Limbitrol® DS

Each tablet contains 10 mg chlordiazepoxide and 25 mg amitriptyline (as the hydrochloride salt) Ⓘⓥ

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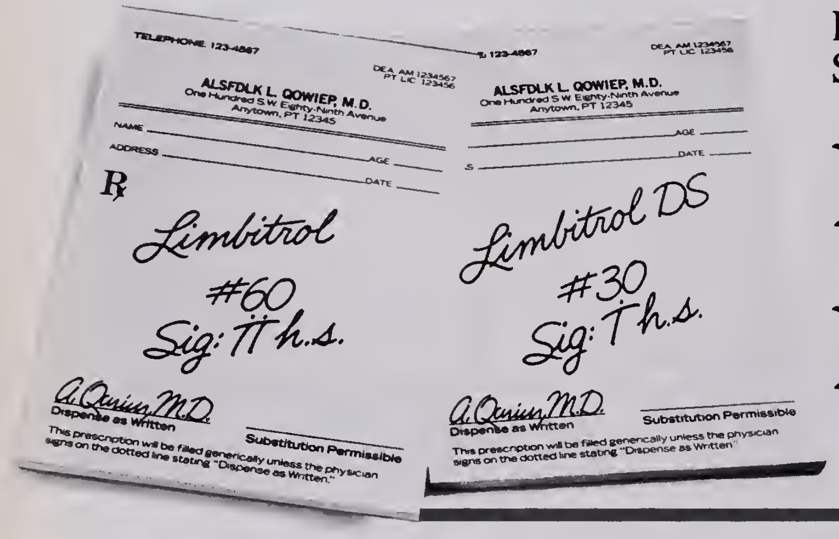
Please see summary of product information inside back cover.

In moderate depression and anxiety

- 74% of patients experienced improved sleep after the first *h.s.* dose[1]
- First-week improvement in somatic symptoms[1]
- 50% greater improvement with Limbitrol in the first week than with amitriptyline alone[2]



TELEPHONE 123-4567

DEA AM 1234567
PT LIC 123456

ALSFDLK L. QOWIEP, M.D.
One Hundred S.W. Eighty-Ninth Avenue
Anytown, PT 12345

NAME
ADDRESS AGE
DATE

℞

Limbitrol
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Sig: ii h.s.

A. Quinn, M.D.
Dispense as Written

Substitution Permissible

This prescription will be filled generically unless the physician signs on the dotted line stating "Dispense as Written."

123-4567

DEA AM 1234567
PT LIC 123456

ALSFDLK L. QOWIEP, M.D.
One Hundred S.W. Eighty-Ninth Avenue
Anytown, PT 12345

AGE
S DATE

Limbitrol DS
#30
Sig: i h.s.

A. Quinn, M.D.
Dispense as Written

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Protect Your Prescribing Decision:
Specify "Do not substitute."

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Each tablet contains 5 mg chlordiazepoxide and 12.5 mg amitriptyline (as the hydrochloride salt) Ⓒ

Limbitrol® DS

Each tablet contains 10 mg chlordiazepoxide and 25 mg amitriptyline (as the hydrochloride salt) Ⓒ

References: **1.** Data on file, Hoffmann-La Roche Inc., Nutley, NJ. **2.** Feighner VP, *et al: Psychopharmacology 61:*217-225, Mar 22, 1979.

Limbitrol® Ⓒ
Tranquilizer—Antidepressant
Before prescribing, please consult complete product information, a summary of which follows:

Contraindications: Known hypersensitivity to benzodiazepines or tricyclic antidepressants; concomitant use with MAOIs or within 14 days of monoamine oxidase inhibitors (then initiate cautiously, gradually increasing dosage until optimal response is achieved); during acute recovery phase following myocardial infarction.

Warnings: Use with caution in patients with history of urinary retention or angle-closure glaucoma. Severe constipation may occur when used with anticholinergics. Closely supervise cardiovascular patients. Arrhythmias, sinus tachycardia, prolongation of conduction time, myocardial infarction and stroke reported with tricyclic antidepressants, especially in high doses. Caution patients about possible combined effects with alcohol and other CNS depressants and against hazardous occupations requiring complete mental alertness (*e.g.,* operating machinery, driving).

Usage in Pregnancy: **Use of minor tranquilizers during the first trimester should almost always be avoided because of increased risk of congenital malformations. Consider possibility of pregnancy when instituting therapy.**

Withdrawal symptoms of the barbiturate type have occurred after discontinuation of benzodiazepines (see Drug Abuse and Dependence).

Precautions: Use cautiously in patients with a history of seizures, in hyperthyroid patients, those on thyroid medication, patients with impaired renal or hepatic function. Because of suicidal ideation in depressed patients, do not permit easy access to large quantities of drug. Periodic liver function tests and blood counts recommended during prolonged treatment. Amitriptyline may block action of guanethidine or similar antihypertensives. When tricyclic antidepressants are used concomitantly with cimetidine (Tagamet), clinically significant effects have been reported involving delayed elimination and increasing steady-state concentrations of the tricyclic drugs. Use of Limbitrol with other psychotropic drugs has not been evaluated; sedative effects may be additive. Discontinue several days before surgery. Limit concomitant administration of ECT to essential treatment. See Warnings for precautions about pregnancy. Should not be taken during the nursing period or by children under 12. In elderly and debilitated, limit to smallest effective dosage to preclude ataxia, oversedation, confusion or anticholinergic effects. Inform patients to consult physician before increasing dose or abruptly discontinuing this drug.

Adverse Reactions: Most frequent: drowsiness, dry mouth, constipation, blurred vision, dizziness, bloating. Less frequent: vivid dreams, impotence, tremor, confusion, nasal congestion. Rare: granulocytopenia, jaundice, hepatic dysfunction. Others: many symptoms associated with depression including anorexia, fatigue, weakness, restlessness, lethargy.
Adverse reactions not reported with Limbitrol but reported with one or both components or closely related drugs: *Cardiovascular:* Hypotension, hypertension, tachycardia, palpitations, myocardial infarction, arrhythmias, heart block, stroke. *Psychiatric:* Euphoria, apprehension, poor concentration, delusions, hallucinations, hypomania, increased or decreased libido. *Neurologic:* Incoordination, ataxia, numbness, tingling and paresthesias of the extremities, extrapyramidal symptoms, syncope, changes in EEG patterns. *Anticholinergic:* Disturbance of accommodation, paralytic ileus, urinary retention, dilatation of urinary tract. *Allergic:* Skin rash, urticaria, photosensitization, edema of face and tongue, pruritus. *Hematologic:* Bone marrow depression including agranulocytosis, eosinophilia, purpura, thrombocytopenia. *Gastrointestinal:* Nausea, epigastric distress, vomiting, anorexia, stomatitis, peculiar taste, diarrhea, black tongue. *Endocrine:* Testicular swelling, gynecomastia in the male, breast enlargement, galactorrhea and minor menstrual irregularities in the female, elevation and lowering of blood sugar levels, and syndrome of inappropriate ADH (antidiuretic hormone) secretion. *Other:* Headache, weight gain or loss, increased perspiration, urinary frequency, mydriasis, jaundice, alopecia, parotid swelling.

Drug Abuse and Dependence: Withdrawal symptoms similar to those noted with barbiturates and alcohol have occurred following abrupt discontinuance of chlordiazepoxide; more severe seen after excessive doses over extended periods; milder after taking continuously at therapeutic levels for several months. Withdrawal symptoms also reported with abrupt amitriptyline discontinuation. Therefore, after extended therapy, avoid abrupt discontinuation and taper dosage. Carefully supervise addiction-prone individuals because of predisposition to habituation and dependence.

Overdosage: Immediately hospitalize patient. Treat symptomatically and supportively. I.V. administration of 1 to 3 mg physostigmine salicylate may reverse symptoms of amitriptyline poisoning. See complete product information for manifestation and treatment.

How Supplied: *Double strength (DS) Tablets,* white, film-coated, each containing 10 mg chlordiazepoxide and 25 mg amitriptyline (as the hydrochloride salt), and *Tablets,* blue, film-coated, each containing 5 mg chlordiazepoxide and 12.5 mg amitriptyline (as the hydrochloride salt)—bottles of 100 and 500; Tel-E-Dose® packages of 100; Prescription Paks of 50.

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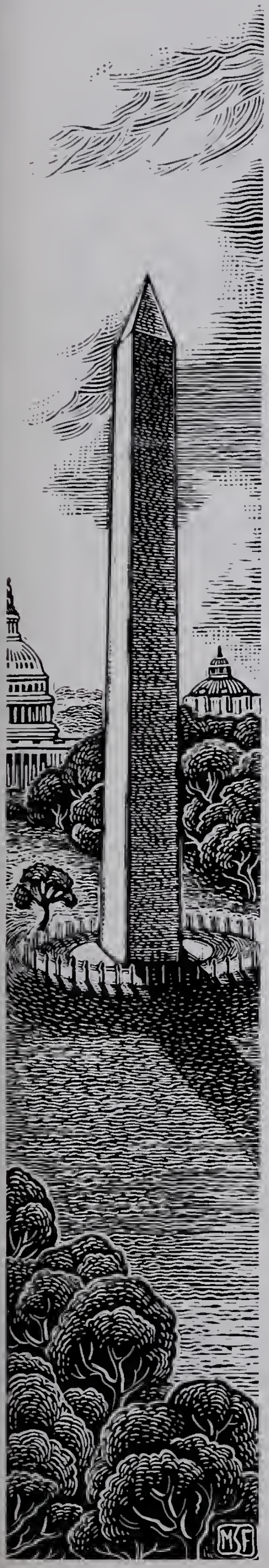
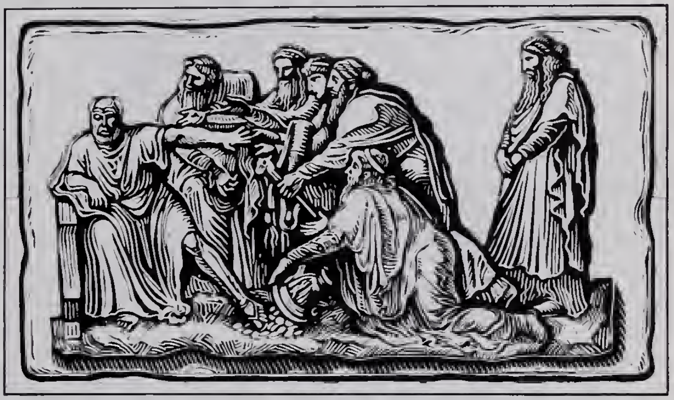


OVER A CENTURY AGO,

a thousand visionary physicians across the nation bestowed a commemorative stone carving to the Washington Monument. This patriotic display symbolized their unrelenting devotion to a new republic founded on freedoms—including the freedom to practice medicine for the best possible health of all its people. *Today your help is needed to restore this symbol of our profession.*



Because the commemorative stone has suffered from severe erosion and defacement, the American Medical Association is launching a campaign to raise money from physicians to restore this symbol of medicine for the National Park Service. Every contribution made to this effort will serve as a statement of each physician's personal affirmation and commitment to health and medicine in America.

Please take part in rededicating the commemorative stone as a shining example of the strength of medicine in a free and strong society. Contributors who donate $100 or more will receive a memorial replica of the carving as a token of appreciation. Send your tax deductible contribution for this timeless symbol today. Thank you.

AMA AMERICAN MEDICAL ASSOCIATION

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All donations are tax deductible. All contributions will be publicly recognized in an unveiling ceremony for the new stone when it is fully restored.

Thank you for your contribution.

HENNEPIN COUNTY MEDICAL CENTER/HENNEPIN FACULTY ASSOCIATES
CALENDAR OF MEDICAL EVENTS

September 8, 1989

THE MEDICAL LEGAL INTERFACE IN THE 90s
Michael Belzer, MD, Program Chairman
Hennepin County Medical Center, Minneapolis
This medical legal conference is designed for physicians and lawyers, medical directors, hospital administrators, officers of county and specialty medical societies. This interactive conference will be a state of the art conference exploring areas of controversy and concern in the contemporary medical legal arena and that are common to physicians and lawyers.

8:45 **CONTROVERSIES BETWEEN STATUTES AND MEDICAL PRACTICE**
--Robert Gruninger, MD, Moderator

KEYNOTE ADDRESS
William T. (Mike) Carlson, JD, Chairman
American Bar Association, Health Care Law Committee

DECISIONS DURING AND AT THE END OF LIFE:
- Public Health Policy vs Patients' Rights
- The Living Will
- Termination of Treatment

11:30 Lunch at the Normandy Inn
Medical National Disciplinary Data Bank
--William Jacott, MD

1:15 **DETERMINING COMPETENCE**
--William Jacott, MD, Moderator

This session will deal with peer review, credentialing, PRO activities, discovery, immunity and quality assurance issues. Panelists will include:
- Jack Breviu, JD, Special Assistant Attorney General; General Counsel, Minnesota Board of Medical Examiners
- Betty Shaw, JD, Senior Assistant Director Lawyers Professional Responsibility Board
- Melvin Sigel, MD, Past President and Current Member Minnesota Board of Medical Examiners
- James Bryan Warren, MD Foundation for Health Care Evaluation

3:00 **CIVIL LITIGATION**
--Phillip Peterson, MD, and Donna Blazevic, JD Moderators

This segment of the program will attempt to answer several controversial questions. Examples include:
- Who is an "expert" witness?
- What happens when the scientific understanding of a medical problem is controversial, and yet malpractice is claimed?
- Are lawyers and physicians not sued enough?
- Why are doctors not willing to testify?
- Do malpractice suits improve the quality of care or increase the cost?

Applications are being submitted for AMA Category I credit, AAFP Prescribed credit and Minnesota State Bar Association Continuing Legal Education credit.

September 21-22, 1989

TWELFTH ANNUAL TRAUMA & CRITICAL CARE SEMINAR
Brian Mahoney, MD, and Arthur Ney, MD, Co-Chairpersons
Hennepin County Medical Center, Minneapolis
This conference is designed for primary care physicians, general surgeons and emergency medicine specialists. It will include didactic presentations, small group sessions and practical workshops.

DAY I
8:00 **INITIAL ASSESSMENT, STABILIZATION, AND MANAGEMENT**
--Melvin Bubrick, MD, Moderator
- Trauma Networking
- Initial Assessment and Resuscitation
- Severe Head Injury
- Cervical Spine Injuries
- Chest Injuries
- Abdominal Trauma

11:00 Lunch at the Normandy Inn
Medical Care Delivery in Wartorn Afghanistan
--John McGill, MD

1:00 - 2:30 **TRACK A: Resuscitation and Stabilization**
TRACK B: Cases from the Real World

2:50 - 5:00 **PRACTICE STATIONS**

DAY II
8:00 **SPECIAL ISSUES IN TRAUMA CARE**
--James Andrisevic, MD, Moderator
- Renal Failure in Trauma Patients
- Trauma in Pregnancy
- Farming Injuries
- Burns
- Pediatric Multiple Trauma
- Eye Injuries

11:00 Lunch at the Normandy Inn
Disaster Assistance to Armenian Earthquake Victims
--Allan Collins, MD

1:00 - 2:30 **TRACK C: Special Issues**
TRACK D: ICU Issues

2:50 - 5:00 **PRACTICE STATIONS**

Applications are being submitted for AMA Category I credit, AAFP Prescribed credit and American College of Emergency Physicians for Category I credit.

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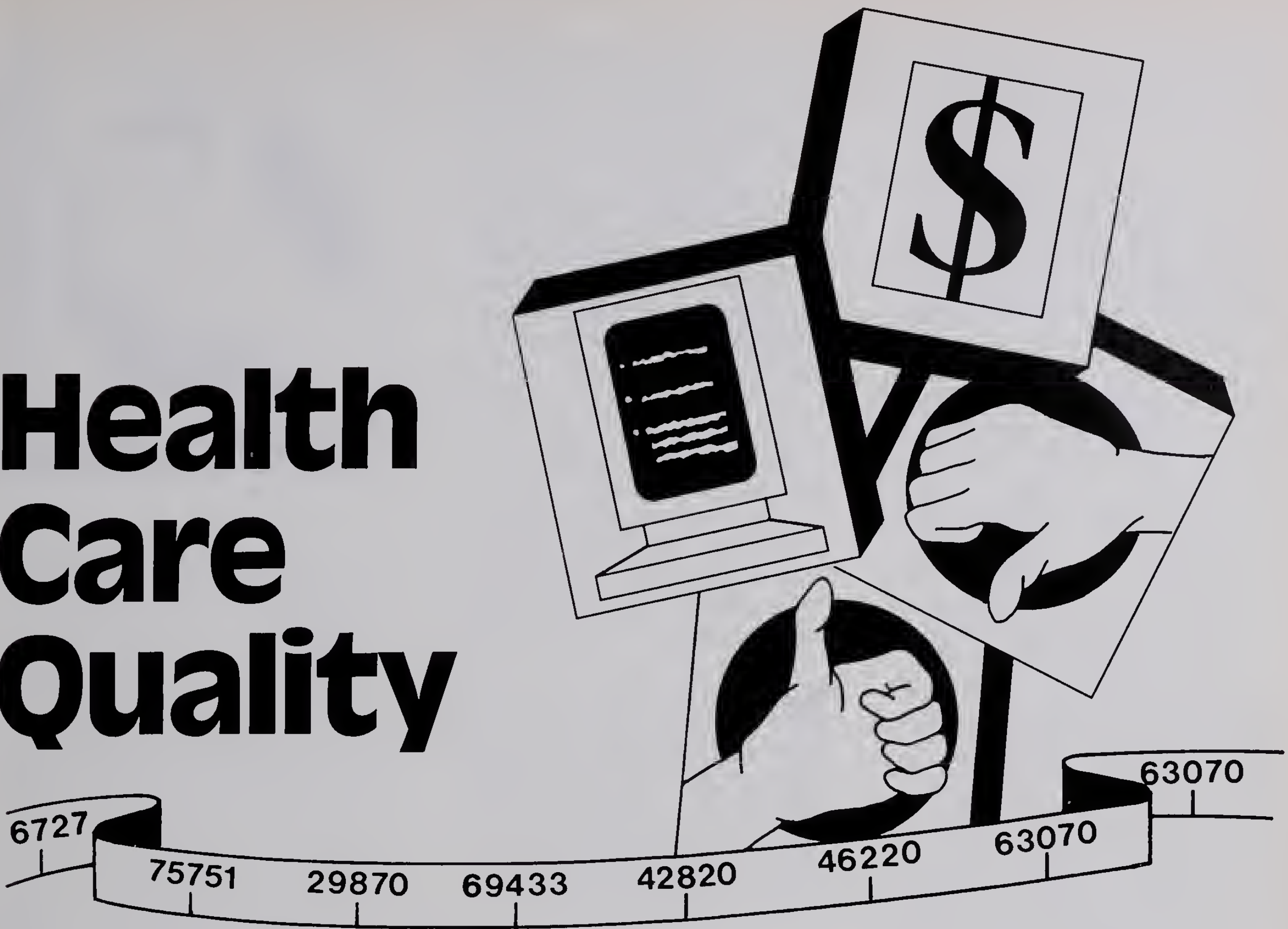
Health Care Quality



How We Measure, Define, and Refine It

Chuck Benda

Illustrations by
Lynne Menturweck

What makes the Mona Lisa great? Think for a minute. Is it the smile? The eyes? The purity and innocence? Or the mischievousness? Why is it so intriguing?

When you have it sorted out in your own mind, try to tell it to a friend. If your friend is passionate and has an opinion of his or her own, you may be about to lose a friend, for most certainly the two of you are about to disagree. Quality is an elusive concept. When your friend launches into a lengthy discourse on the use of visual puns by early Renaissance painters, you may be left with little recourse but to issue some glib remark (Maybe I don't know art, but I know what I like.) and slip out the back door.

What makes good medicine?

Discussions among physicians about what constitutes quality in medical care are often equally frustrating and inconclusive. For nearly a century some of this country's greatest medical minds have attempted both to define and to measure quality in medical care. Those efforts have been, at least in part, an exercise in frustration.

And yet, most physicians feel they are practicing good medicine. The response of many physicians to the various attempts to define quality has been something along the lines of "Practicing good medicine is not like following a recipe out of a cookbook. Maybe I can't define it, but I know good medicine when I see it."

Unfortunately, that's not good enough any more. The people who pay the bills want greater definition.

"In the last decade or so, some of the major players in the health care industry—who are also the major payers—are insisting on better accountability," said Robert Kane, M.D., dean of the University of Minnesota School of Public Health.

To achieve that accountability, these major players—the government, private corporations that purchase health care, health care brokers—have instituted various quality assessment and assurance instruments, such as utilization reviews, severity groups, appropriateness guidelines, diagnosis-related groups (DRGs), and practice parameters, to help define what they think is acceptable medical care.

Regardless of the name you call it, more and more physicians find themselves with someone looking over their shoulders while they work, making judgments on appropriateness, quality, and cost-effectiveness. Such careful attention to the delivery of medical care may ultimately prove to greatly benefit the medical community. Nevertheless, it requires someone to make concrete decisions about quality, based on objective data. This monitoring, for the most part conducted by third parties, is likely to increase.

"One of the major issues facing Blue Cross and Blue Shield," said Del Ohrt, M.D., medical director of Blue Cross and Blue Shield of Minnesota (BCBSM), "comes from the people who purchase our products. They're asking, 'Do we know we're buying quality?' There's also a lot of concern about cost, but if we can assure people that they are indeed purchasing quality from our various products, there will be less emphasis on the cost of medical care."

To that end, BCBSM has purchased a software package from Value Health Sciences, Inc., that will assess the appropriateness of 10 procedures before authorization of payment. BCBSM is using the system on a six-month trial basis to begin with and will not actually deny payment during the trial period. Also, procedures deemed inappropriate by the software package will be subject to physician review, so the system is really a means of flagging procedures that may be inappropriate so that the circumstances can be reviewed by another physician.

This new utilization review software may be the sign of things to come. Mark Chassin, M.D., founder of Value Health Sciences, Inc., said that this software and other similar systems have been purchased by several other insurers around the country.

"The cost problem is not going to disappear," Chassin said. "Employers are going to continue to be hit with 20 to 30 percent increases in premiums. When you combine that with concerns about the quality those dollars are buying, people are going to continue to demand greater accountability."

This demand for accountability has created quite a stir in the medical community. Behind all of this hubbub is a steady buzz of quality-related issues: quality assessment, quality assurance—quality, quality, quality. What's it really all about?

"Regardless of the name you call it, more and more physicians find themselves with someone looking over their shoulders while they work, making judgments on appropriateness, quality, and cost-effectiveness."

"You can trace this process back to E. A. Codman, a surgeon at Massachusetts General Hospital around the turn of the century," Kane said. "Codman got into big trouble by measuring the outcomes of all surgery done there and reporting his findings. His colleagues censured him as a result."

Since Codman's time, there has been a series of time periods—the early 1930s, the mid-1950s, the late 1960s—during which the interest in quality of medical care blossomed. The earlier flurries focused on improving care. In more recent time, the emphasis has been on maintaining quality in the face of rising costs.

Nationally, various professional organizations, federal agencies, and independent research firms have been working to establish guidelines and practice parameters for a number of years, with the goal of improving medical practice.

"The National Institutes of Health has used consensus paneling for many many years to develop guidelines on controversial issues," said Alvin Schultz, M.D., senior vice president of medical affairs at Health One Corporation. "The Rand Corporation has done it for about 10 years, and the American College of Physicians, in what they call their Clinical Efficacy Assessment Program, has set standards for 12 years."

These agencies use expert panels to develop guidelines through consensus. The guidelines are then published in the medical literature.

These guidelines, however, do not resolve disputes about what constitutes quality in medical care. Defining quality can, in and of itself, become an endless activity. The skill of delivery, the compassion of the caregiver, the post-care health of the patient are all indicators of quality medical care. But what do they mean if the care that was given was unnecessary? In 1986, the American Medical Association adopted an eight-point definition of quality health care. This definition, as paraphrased by Grant

E. Steffen, M.D., in a July 1, 1988, *JAMA* article, reads: "Quality care should 1) produce optimal improvement in the patient's health; 2) emphasize the promotion of health and the prevention of disease; 3) be provided in a timely manner; 4) seek to achieve the patient's informed cooperation and participation in the care process and decisions concerning it; 5) be based on accepted principles of medical science; 6) be provided with sensitivity and concern for the patient's welfare; 7) make efficient use of technology; and 8) be sufficiently documented to allow continuity of care and peer evaluation."

To simplify matters, Kane suggests the following working definition of quality care: "those activities that lead to improvement in the health of an individual."

Agreement on such a basic definition, however, still does not solve the problems of assessment and assurance.

In the 1960s, Avedis Donabedian, M.D., M.P.H., established what has since become the standard approach to quality assessment. According to Donabedian, quality can best be assessed by examining three areas: outcomes, process, and structure. Outcomes are the result of the medical care—what actually happened to the patients. Process covers the activities of the physicians and others involved in giving the medical care. Structure means the certifications, qualifications, and similar attributes of the resources used to provide the care.

According to Paul Ellwood, M.D., founder and chief executive officer of the Excelsior-based InterStudy, there are four basic ways to take this a step further and enter into the realm of quality assurance: 1) Set practice parameters, using experts to develop guidelines for physicians and other caregivers to follow; 2) Use peer review organizations to seek out behavior that is aberrant or atypical and correct it; 3) Use industry quality assurance techniques, trying constantly to improve performance. Instead of seeking out aberrant behavior, you reward good behavior; 4) Use outcomes management. Study the actual results of medical care and feed the data back to whomever can use it.

Ellwood is a strong proponent of outcomes management and currently works with QualityQuest, a nonprofit affiliate of InterStudy, founded to establish a national outcomes management data base that can be used to improve medical practice.

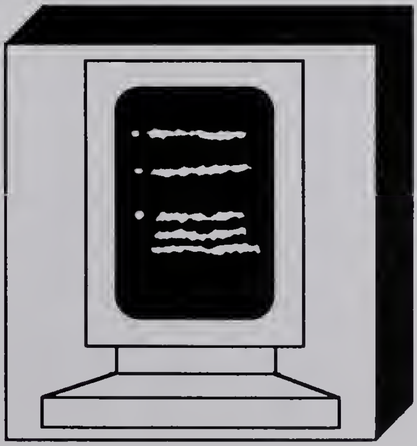
"The real justification for this kind of work is improving quality," Ellwood said. "The stimulus, the majority of the time, however, is the pressure of rising costs. Costs are so high something has to be done. Government is such a big buyer it can command and control the system. There's no doubt the government will be a big player, but by being active, the medical community can hope its guidelines will be government's guidelines.

The current flurry of activity is due, in large part, to two factors. The first of these is the availability of technology (computers), which puts large masses of patient data at researchers' fingertips.

The second factor is the rapid rise in health care costs.

"Rising costs have probably contributed 75 to 80 percent of the motivation of all these inquiries into quality," Schultz said. "The other 20 to 25 percent is the motivation to do what's right for patients."

The advance of record-keeping techniques and data management has given those most concerned with costs—the payers—reams and reams of data with which to evaluate the "quality" of medical care (with cost factors never far out of sight).



The possession of those data gives them power.

"There is a great potential for misusing this information," said Robert Kane. "First of all, you need really large numbers to make the data meaningful. Secondly, you need to make sure you have really accounted for all of the factors that affect the data you're examining."

"Rising costs have probably contributed 75 to 80 percent of the motivation of all these inquiries into quality. The other 20 to 25 percent is the motivation to do what's right for patients."

The possible abuse of that power prompted the Minnesota Medical Association to investigate appropriate uses of those data.

"The medical association established a data utilization policy in 1985," said Robert Christensen, M.D., president of the MMA. "The crux of the policy said that we need to make certain that the data are accurate, that the use of the data is appropriate, and that the confidentiality of the patient is guaranteed. We also suggested that the goal of these appropriateness studies ought to be the education of the physicians.

"Quality assessment and assurance is not something we're looking at for the first time," said Christensen. "We've been seeking ways to make better use of the new quality assessment and assurance information since the late 1970s.

"The people of Minnesota need to have the physicians of Minnesota develop these guidelines," Christensen said. "Whether you call them appropriateness parameters, guidelines, standards, norms—physicians ought to be the ones.

We ought to take it upon ourselves as part and parcel of our professionalism. It's better for us to evaluate these data on a quality basis. Currently, the third-party payers are evaluating the data on a cost/benefit basis."

Minnesota physicians and other health care professionals have been extremely active in the recent quality assessment/assurance hubbub.

Kane is in the middle of a three-year, federally funded patient satisfaction/outcomes study tracing 1,250 patients in five diagnosis-related groups after their discharge from hospitals in Houston, Pittsburgh, and the Twin Cities. Through a series of telephone interviews, Kane and his colleagues are assessing outcomes at six weeks, six months, and 12 months following discharge.

The Minnesota Hospital Association (MHA) launched a pilot study on patient satisfaction using mail surveys. The project is still being completed, but David Feinwachs, vice president and general counsel for the MHA, was optimistic about the early results.

The MHA project also covered five DRGs. Nearly 1,800 questionnaires were mailed out to patients discharged from 10 hospitals around Minnesota. According to Feinwachs, the response rate was 45 percent within 30 days. Feinwachs, who believes patient satisfaction is a good measure of outcomes, said that the pilot study may lead the way to continued surveys, depending upon the decision of the MHA Board of Directors.

One of the most ambitious efforts in the quality assessment/assurance arena is the Minnesota Clinical Comparison and Assessment Project (MCCAP). This three-year, $1.3 million project, coordinated by the Healthcare Education and Research Foundation (HERF), is designed to provide Minnesota physicians with practice guidelines and an abundance of data that will enable them to improve the quality of medical care in the state.

A unique project nationally, MCCAP goes beyond the usual consensus-panel model in which experts develop parameters and then publish them in the medical literature. MCCAP will establish standards through consensus panels, but it will also determine the norms in the local medical community through the analysis of clinical and charge data from all Twin Cities hospitals and selected rural hospitals. This information will then be presented to state physicians so that they can see how they compare both to the rest of the community and to the established parameters.

"Defining quality can, in and of itself, become an endless activity."

"That gives us an educational feedback loop," said Schultz, who is also principal investigator for the project. "This is a consensus process that gives feedback directly to the individual. It should have a much greater impact than just reading the literature. If it can be pulled off, we feel it gives us the best chance of any program of actually changing the clinical behavior of physicians."

"We're developing a system that the physicians can use to evaluate their practice and actually improve the care they provide," said Catherine Borbas, executive director of HERF.

According to Borbas, the project was loosely modeled after the Pediatric Cardiac Consortium, a group of several regional pediatric cardiac centers that banded together to improve their clinical practice. James Moller, M.D., chief of staff at the University of Minnesota Hospital and head of the Pediatric Cardiac Consortium, said that in spite of low funding and voluntary participation, the consortium has experienced great success in improving the actual practice of its member hospitals.

"It works because the physicians understand the system; they participate in the system. They play a role in modifying the system—and the data they get back are useful to them," Moller said.

Similarly, MCCAP will rely on Minnesota physicians both to establish the standards and to modify them as needed. MCCAP will also act as a clearinghouse for further evaluation of standards and guidelines that come from outside sources, such as national specialty groups or third-party payers.

Also, if funding can be secured, MCCAP will include an outcomes assessment component, operated by Kane, to determine whether outcomes support established parameters, or if additional fine tuning is needed.

Funding for MCCAP has come from a number of sources, including the Council of Hospital Corporations, the Hennepin County Medical Society, the Minnesota Hospital Association, the Minnesota Medical Association, and the Ramsey County Medical Society.

Over the course of three years, MCCAP plans to develop clinical guidelines for 20 to 25 high-volume, high-risk medical conditions and procedures.

"This is different than anything anyone else has tried," said Schultz. "It's good evidence that the physicians and the hospitals are trying to do something about quality and cost."

"Now, with MCCAP, we've really got an opportunity here," said Christensen. "This can be tremendously beneficial to the people of Minnesota."

Chuck Benda is a free-lance writer living in Hastings, Minnesota.

The Language of Quality Assessment

Quality assessment of medical care, like many specialized areas, seems to have a language all its own. How, for example, do the quality assessment experts distinguish among "effectiveness," "efficacy," and "efficiency?" The following glossary will help you understand the language of quality assessment.

Appropriateness: refers to the medical necessity of care, the relevance or suitability of services to the patient's problem, and the proper location or setting for the service delivery, given the current state of medical knowledge and technology.

Criteria: pre-determined elements of health care against which the necessity, appropriateness, or quality of health services may be compared. For example, criteria for appropriate diagnosis of a urinary tract infection may be performance of a urine culture and a urinalysis. The term "criteria" is often used synonymously with guidelines. Criteria are also statements of accepted practices that peers use when reviewing cases; these statements are objective tests by which appropriateness of care may be judged. The development of medical care criteria is based on professional expertise and on the professional literature.

Effectiveness: the degree to which diagnostic, preventive, therapeutic, or other actions achieve the intended result. Effectiveness requires consideration of the measurement of outcomes. It does not require consideration of the cost of the action, although one way of comparing the effectiveness of actions with the same or similar intended results is to compare the ratios of their effectiveness to their costs.

Effectiveness also refers to the probability of benefit of medical treatment applied by the average practitioner for the typical patient, and it signifies whether medical care improved the patient's condition. Outcome comparisons provide an important measure of effectiveness.

Efficacy: commonly used synonymously with effectiveness but may be distinguished from it by using *efficacy* for the results of actions undertaken under ideal circumstances and *effectiveness* for their results under usual or normal circumstances.

Efficacy also refers to the probability of benefit to a defined population from a medical treatment under ideal conditions of use.

Efficiency: the relationship between the quality of resources used in the production of medical services and the quantity of output produced. Efficiency has three components: input productivity (technical efficiency), input mix (economic efficiency), and scale of operation. Efficiency is usually measured by indicators such as output per person hour or cost per unit of output. However, such indicators fail to account for the numerous relevant dimensions (such as quality) of both inputs and outputs and are, therefore, only partial measures. Colloquially, efficiency measures the "bang for the buck," but it is a difficult concept to define and quantify. Ultimately, efficiency is often measured in terms of the costs of achieving various health outcomes; defining it in terms of productivity assumes that what is produced is efficacious and used effectively.

Input Measure: a measure of the quality of services based on the number, type, and quality of resources used in the production of the services. Medical services are often evaluated by measuring the education and training level of the provider, the types of services provided, the reputation and accreditation of the institution, the number of health personnel involved, or the amount of money spent, as proxy measures for the quality of the service. Input measures are generally recognized as inferior to process and outcome measures because they are indirect measures of quality and do not consider the actual results, or outcomes, of services. Nonetheless, input measures are often used because people are accustomed to using them, and they are easily obtained using traditional data sources.

Norms: numerical or statistical measures of usual observed performance. For example, a norm for cases diagnosed as appendicitis would be the usual percentage of removed appendices that are shown by pathological exam to be diseased. A norm can be used as a standard but does not necessarily measure preferred or optimal care.

Outcome: refers to a change in a patient's current and future health that can be attributed to antecedent health care.

Outcome measures: a measure of the quality of medical care in which the standard of judgment is the attainment of a specified result, or outcome. The outcome of medical care is measured with such parameters as improved health or functional status, lowered mortality and morbidity, and improvement in abnormal states (such as elevated blood pressure), and patient satisfaction. Any disease has a "natural history" that medical care seeks to alter. To measure the effectiveness of a particular medical action in altering a disease's natural history is to carry out an outcome measure, which is necessary to conduct cost-benefit analyses of medical care. Outcome measures are difficult to devise and have not often been done in comparing medical settings or treatment alternatives.

Peer review: generally, the evaluation by practicing physicians or other professionals of the effectiveness and efficiency of services ordered or performed by other practicing physicians or other members of the profession whose work is being reviewed (peers).

cont.

Duties include the establishment of criteria, norms, and/or standards for diagnosis and treatment of diseases encountered.

Quality assurance: activities and programs intended to assure the quality of care in a defined medical setting or program. Such programs usually include educational or other components intended to remedy identified deficiencies in quality, as well as the components necessary to identify such deficiencies (such as peer or utilization review components) and assess the program's own effectiveness.

Small area analysis: a method of measuring and comparing the use of medical care services by geographic area. It uses statistical techniques from classical epidemiology to compare one population's experience with another, after adjusting for demographic variations. Data generated as a result of this analysis may reflect differences in provider practice styles.

Standards: generally, a measure set by a competent authority as a guide for measuring quantity or quality. Conformity with standards is usually a condition of licensure, accreditation, or payment for services. Standards may be defined in relation to the actual or predicted effects of care; the performance or credentials of professional personnel; and the physical plant, governance, and administration of facilities and programs.

Utilization: is commonly examined in terms of patterns of rates of use of a single service or type of service, e.g., hospital care, physician visits, prescription drugs. Measurement of utilization of all medical services in combination is usually done in terms of expenditures. Use is expressed in rates per unit of population at risk for a given period, e.g., number of admissions to hospital per 1,000 persons over 65 per year, or number of visits to a physician per person per year.

The source for many of these definitions is A Discursive Dictionary of Health Care, *U.S. Government Printing Office, Washington, D.C. 1976.*

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‘Fishhook Medicine’

In Minnesota’s Resort Towns

Miriam K. Feldman

The seven physicians at the Falls Medical Center in International Falls take turns being on call for urgent issues. During the winter months, the physician on call can count on scheduling some regular patients for routine visits. But in the summer months, it’s a different story. “During the tourist season I will approach a day of being on call with an absolutely blank, open book. No one is scheduled at all,” says Burton Helleloid, M.D., who has been practicing family medicine since 1980. “By mid-morning that day, it’s all booked up, the need for urgent care is so great.” That scenario is played out in popular tourist spots across the state. From Ely to Grand Rapids, from Grand Marais to International Falls, physicians tell the same story. In resort-town Minnesota there are two seasons for practicing medicine. As a result, there are two practice styles, as well.

TOURIST
INFORMATION
GRAND RAPIDS

PHOTOS COURTESY OF MINNESOTA OFFICE OF TOURISM

By all accounts, the summer months bring many more patients into resort-town clinics and emergency rooms, usually for the treatment of minor trauma. While tourism may be good for hotels, resorts, restaurants, and other businesses, it can be a drag on clinics, emergency rooms, and the physicians who staff them.

"We have two practices—a Memorial Day to Labor Day practice, and then the other one," says Walter Leino, M.D., who has been practicing family medicine at the Ely Medical Center for nearly 19 years.

Practicing medicine in the summer "is a much more intense experience. It's half again what we do through spring and fall, maybe even double," says Bruce Dahlman, M.D., who has been at the Cook County Community Clinic in Grand Marais for nearly five years.

"Our county population about doubles in the summer," Dahlman said. It swells with the part-time residents who move up to summer homes, workers who staff the resorts, and visitors to the state parks and the Boundary Waters Canoe Area (BWCA). In 1986, for example, 300,000 visitors used Cook County's three state parks, and 73,000 permits were issued (for up to 10 people on a permit) for the BWCA. Many of those people end up in need of medical attention.

In fact, so many tourists require medical care that a physician-short town would have trouble coping with the influx. While nobody who spoke for this story mentioned a physician shortage, Dr. Leino, one of six physicians at the Ely Medical Center, conceded that the loss of a physician would be felt, particularly during the peak tourist season. "We're pretty lucky to be staffed. We live in an area that's desirable. If we were physician-short, and had only two physicians, probably the two would leave. It's too much stress for a small number of doctors to handle."

It's easy to see why the stress would mount. On a typical winter weekend in Ely, 15 patients might visit the emergency room. But in the summer, as many as 60 patients seek emergency room care between Friday evening and Monday morning.

Patrick Welle, an economics professor at Bemidji State University, studied the tourist population in a three-county, north-central Minnesota area in 1987. He had suspected that the population increased during the summer in those three counties—Beltrami, Hubbard, and Lake of the Woods—but even he was surprised by how much. In Hubbard and Lake of the Woods counties, the average daily population increased nearly 50 percent from late May through mid-August. On any given summer day, Hubbard County, population 15,000, received 7,000 visitors.

Welle found that tourists travel to these areas for all the reasons one might suspect. They like the environment—the lakes, the clean air, the natural resources. But while taking in the scenery, many tourists also get sunburned, fall into campfires, get stuck with fishhooks, and are bitten by bugs. And, they end up in the local clinic or emergency room.

Two summers ago Leino treated a camper who had been bitten by a black bear. He says that was about the oddest condition he has seen in a tourist. In fact, most of what he sees during the summer is fairly minor and falls into three categories: lacerations, cuts, and bruises; fractures; and insect bites.

Resort-area physicians get their share of auto accidents and heart attacks, but a lot of what they treat in the summer is minor trauma. "It's amazing the number of fishhooks, slivers, and cuts we see," Helleloid said.

In fact, for years there has been a drawing of a fisherman on the wall of the emergency room in Brainerd. Every fishhook that is removed from a careless or overzealous fisherman is stuck in a corresponding spot on that picture.

Fishhook medicine is not what these small-town physicians were trained to practice. They are family physicians, who by necessity, are providing urgent care in the summer. "I went into family practice because I like continuity of care," Dahlman said.

That continuity is gone in the summer. Leino compared summer practice to the walk-in clinic in the mall—the doc-in-the-box. While he gets to know some of the summer people well—the ones who have homes in the area—most are one-time walk-ins. For a family practitioner that's not an ideal situation, Leino said, because there is no continuity of care. As Dahlman said: "Developing a rapport with people is harder in a transient population."

"The goal of family practice is to provide comprehensive, ongoing medical care," Helleloid said. "Family practice is not urgent care." But his summer practice is what he calls, "straightforward urgent care." The bottom line, as he puts it, is this: "We do not know these people at all, and that makes it more difficult to practice medicine."

One of the difficulties is that tourists disappear after a single visit. "You lose your follow-up with a tourist," said Ron Johnson, M.D., of the Itasca Clinic in Grand Rapids. He tries to be sure that the patient knows what to do after leaving the clinic and to seek help if things don't go right.

The brevity of these doctor-patient encounters tends to put some physicians on the defensive—on the lookout for the potentially litigious patient. Leino spoke about the potential for lawsuits, which he believes is heightened because the physician does not have a relationship with the patient. What's more, the patient approaches the physician in an angry mood, because part of his vacation has been ruined. "They're angry and they have to take it out on somebody," Leino said. That somebody tends to be the doctor.

"I think a lot of times the higher risk of liability is associated with people you don't know," Johnson says. "You want to make sure you do and say everything right when you talk to someone you don't know. You do want to reduce your liability."

Leino is more wary with the stranger—more likely to seek consultation. While he might treat a fracture in one of his regular patients, he is likely to send the stranger with a fracture to a specialist. Many people from the Cities are used to multispecialty clinics and big trauma centers, he said. "Sometimes I just ask them, 'Would you feel more comfortable seeing an orthopedic surgeon?' "

Suspicion of the small-town physician plays a part in this story. When the city slicker meets the country doctor, problems can arise. "Reactions range from, 'Oh, am I glad to see a hospital here; I don't have to go to Duluth,' to, 'How come the orthopedic surgeon isn't here to see me?' " Dahlman explained.

"It's pretty hard to convince some tourists that we know what we're doing, even though we all have had the same training [as doctors from the Cities]," said Johnson, who studied medicine at the University of Minnesota.

Tourists transfer their "larger-city expectations" to the country and can feel uncomfortable in the smaller setting, Dahlman says. They have misconceptions about what rural health care is. One common expectation is that a physician will be on hand at all hours in the emergency room. In many small towns that is a financial impossibility. The emergency room will be open 24 hours, but the doctor on call will be at home. Many patients are angry, Dahlman said, because the doctor is not on the spot when they walk through the door.

"You can't have a paid staff sitting around waiting for things to happen," Johnson said. There are no funds in these small towns to keep a professional staff at the emergency room. Nevertheless, the doctor still has to be prepared to treat anything. A small staff does not mean a deficiency of medical care, it just means that one physician has to be able to deal with anything that comes along, and Johnson concedes that sometimes that's not easy.

"We look forward to the fall . . ."

"You may go for two months without seeing someone with a cardiac arrest. Then you have to be there when the next two come in," Johnson said. A big-city emergency room may handle three cardiac arrests a day, and the staff becomes proficient at handling it, he says. "If there's only one every other month, that's a little unnerving. But you have to handle it, because there's no one else to do it. That doesn't make us less liable for that care. A tourist who has a heart attack up here expects us to do the same thing initially that they would do at Hennepin County [Medical Center] in Minneapolis."

While tourists typically are regarded as good for business, spending money on everything from food to motel rooms, they are not necessarily good for medical business. They don't pay their bills as often as regular patients and they tend to produce more work without compensation for the physician. "If our collection rate is 85 percent, on average, I would suspect from tourists it's 70 to 75 percent," Leino said. "I sense that's just part of the relationship. They don't know you."

The problem of unpaid bills was so severe that the Falls Medical Center decided several years ago to make tourists pay for their treatment up-front, Helleloid said. "The collection ratio is so low that you cannot exist. It puts you out of business."

An insured patient is not necessarily more likely to pay, either. As Helleloid explained, many insured patients have to meet deductibles, so they don't bother to pay. There are collection problems with HMOs, too.

"We're starting to find more and more problems with insurance companies [mostly HMOs from the Twin Cities] saying the visit is not an emergency," said Belinda Hudler, who does the billing for the Cook County Community Clinic in Grand Marais. In that case, one of the doctors has to write a letter to the HMO explaining the reason for the care.

"It's a hassle," says Grand Marais physician Bruce Dahlman. "I have to review the charts. It's a hassle to write the letter at all."

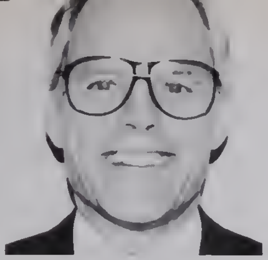
Even if the tourists were to meet their deductibles and the HMOs pay without the hassle, Charles Helleloid, M.D., (Burton's brother) doubts that tourism is all that good for business.

"For our particular practice, the emergency room is an additional burden," he said. "You don't earn enough money in the emergency room to cover your expenses."

If patients were to seek care during the day, the clinic would squeeze them in, he said, and financially they would make out. But many tourists come in at 2 a.m. for an ailment that should have been treated during the day, in the clinic, Helleloid says. Instead, they waited, so they could get in a day's fishing before seeing the doctor. At night they have to go to the emergency room, where there is no nurse on duty, and the doctor on call has to do everything that comes up. "Economically, it brings revenue, but the cost of that revenue, in terms of lack of sleep, is real high. So we're doing more of something that's not worth doing," Helleloid said.

In the summer, "the chance that you get a good night's sleep is just about zero," he added. "During the tourist season we look forward to the fall, when we get a little break."

Miriam Feldman is a Minneapolis freelance writer.



ROBERT D. CHRISTENSEN, M.D.

PRESIDENT'S LETTER

How Will Quality in Health Care Be Defined?

Traditionally, it has been our role as physicians to define quality of care for each of our patients. We have decided what course of treatment will provide the "degree of excellence" defined as "quality."

But, as costs of medical care soar, serious questions arise. How will quality be measured in the future? How will we contain costs while maintaining benefits to the patient? Will there be an uneasy compromise that sacrifices one for the other? Who will decide what medical care is necessary? Clearly, it is vital for us to maintain our rightful place as our patients' advocates and to speak out on their behalf.

Your Minnesota Medical Association has been and continues to be this quality assessment advocate for patients and doctors alike. In 1985 we developed a policy on data collection and dissemination, but we realize that data are converted into useful information only when we have a means to evaluate these data. Evaluation, therefore, is now the MMA's focus; we are advocating for practice guidelines implemented by those who have traditionally determined what quality care is—the physicians. That is why the MMA is involved in the effort by the Minnesota Clinical Comparison and Assessment Project (MCCAP) to establish practice guidelines that will be specifically geared to Minnesota and will allow physicians to compare and improve their practice patterns.

The rising cost of medical care is creating tremendous pressure to establish standards of care outside the profession, as well. Pressure comes from the general public and the major purchasers of health care—the government and corporations. The clamor for cost control has resulted in a push to establish practice standards as rapidly as possible in Minnesota. In May, the Foundation for Health Care Evaluation doubled the number of procedures that must be precertified for Medicare patients. In July, Blue Cross and Blue Shield of Minnesota (BCBSM) will begin using the Value Health Sciences software program to evaluate 10 medical procedures before authorizing them. Honeywell, a driving force behind the move to establish standards, also plans to implement Value Health's computer review program for its employees. This is just a sampling of projects underway to measure the quality of medicine practiced in this state.

"We are advocating for practice guidelines implemented by those who have traditionally determined what quality care is—the physicians."

The proliferation of these efforts to establish standards poses a challenge for physicians. We must become knowledgeable about the strengths and weaknesses of the different programs, so that we can play a major role in establishing guidelines in Minnesota. It is vital for us to get in on the ground floor, to participate in all efforts to set quality standards now, while these programs are just being introduced. Insurance companies and third-party payers are interested in analyzing the benefit to the patient versus the cost to the insurance company—the "cost approach." Physicians, however, focus on the benefit to the patient versus the risk to the patient—the "quality approach." We must ensure that standards are reasonable and based on benefits to our patients rather than on cost control.

The MMA Ad Hoc Committee on Quality Assessment and Data Utilization has been participating in the MCCAP project and closely monitoring all other efforts to measure quality.

I think it is paramount that we keep track of all such efforts to define and measure quality health care. Blue Cross and Blue Shield has asked for our reaction to the Value Health software, and we should be prepared to respond, to help shape the medicine we practice every day. At the same time, physicians should continue to support and participate in MCCAP. It is important for the project's success that we develop a sense of "physician ownership" in these guidelines, which, in Minnesota, may eventually supplant all others.

Ultimately, the responsibility for deciding what kind of medical care is indicated rests with the physician. ■

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The Adult Health Care Decisions Act

Duties of Physicians and Other Health Care Providers

Robert Eelkema, J.D., and Evelyn Van Allen, M.P.H.

Minnesota's new "living will" law, the Adult Health Care Decisions Act, requires new duties of physicians and other health care providers. This article describes these duties and offers suggestions on how to carry them out within the requirements and intent of the law, Chapter 3 of the 1989 Session Laws, and other standards of practice.

Although the act is popularly known as "the living will law" the term "living will" does not appear in the law itself. The terms used in this article are those used in the law: *declaration* for the living will, and *declarant* for the person executing a living will. This article focuses on physicians' involvement in carrying out provisions of the Adult Health Care Decisions Act; however, the law also affects other health care providers, health care facilities, and health maintenance organizations.

Under the law, which goes into effect August 1, competent adults are given the statutory right to make a declaration of their preferences or instructions regarding their health care. These instructions or preferences may include consent to or refusal of any health care, treatment, service, procedure, or placement. Of importance, and sometimes overlooked, is the fact that a declaration may request, as well as decline, health care. The declaration may also include the designation of a proxy to make health care decisions on behalf of the declarant.

The law focuses primarily on one area of medical practice: how health care decisions should be made by and for persons with a terminal condition. A health care decision is defined as "a decision to begin, continue, increase, limit, discontinue, or not begin any health care." The law restates the competent person's right to make health care decisions and places this right within the boundaries of reasonable medical practice. Support for the ethical principle of autonomy is implicit in the law; therefore, physicians and other health care providers must be prepared to give ethically and legally defensible arguments when attempting to act contrary to a patient's properly prepared health care declaration.

From the perspective of the physician or other provider, the duties required by the new law fall into three general categories:

- advising persons on how to prepare a health care declaration (living will),
- processing a declaration upon delivery, and
- implementing the declaration.

Advising Patients on the Preparation of a Declaration

Physicians and other health care providers can anticipate questions about the type of form to use, where to get it, how to fill it out, what to do with it once it's prepared, and how to change it.

The law requires that all forms be "substantially" the same as that in the law. A sample form, with instructions for completing it, will be available by July 1 from member organizations of the Living Will Coalition, including the Minnesota Medical Association and the Minnesota Hospital Association. Printed forms will probably be available in office supply stores as well.

Ideally, a health care declaration will be prepared only after an individual has undertaken a thoughtful assessment of wishes regarding health care and has discussed those wishes with his or her physician and family members. A lawyer is not required for a person to draft a declaration; however, individuals should recognize the importance of the document as well as its limitations. Physicians can help their patients to comprehend the advantages and limitations of a declaration by assuring that patients understand that the document itself cannot command any particular medical treatment or cessation of treatment. The physician will interpret and implement the declaration at the time decisions must be made. The patient should understand that the physician is bound at all times to exercise reasonable medical judgment. It should be explained to those seeking advice that the declaration must be a statement of the person's own values, beliefs, and wishes, and no one else's; that it is an opportunity to communicate one's beliefs and instructions prior to terminal illness, and that the declaration will assist those who must make decisions when the patient is no longer able to make them. Such a discussion can help enhance the meaning of the declaration for both patient and physician.

Regarding specific instructions, physicians and others must be careful to *explain,* i.e., provide information, rather than *persuade,* which is the continuing challenge of informed consent, a principle that is strongly reinforced by the Adult Health Care Decisions Act.

Space does not permit an extensive discussion of each of the seven instructions included in the statutory form (such a discussion is presented in a publication available from the Minnesota Network for Institutional Ethics Committees); however, physicians should anticipate and be prepared to answer the following questions about the instructions:

► What is the difference between health care and life-sustaining treatment?

► What is appropriate health care?

► What is artificial sustenance?

► What is reasonable medical practice?

► Should I appoint a proxy, and whom should I appoint?

These and other questions are addressed in the above-referenced publication. A general response should convey the concept that the focus of health care and life-sustaining treatment, including artificial sustenance, must be on the effect of care and treatment on the patient; that it should not violate that individual's wishes as expressed in the declaration and/or by the person's chosen proxy; and that it should respect the dignity and individuality of each person. This is reasonable medical practice.

Providers should also be prepared to answer questions about the specific requirement related to artificially administered sustenance. That is, if the declarant's wishes are not stated or if the declarant has not instructed the proxy to make such decisions, all other instructions are enforceable, but decisions regarding artificially administered nutrition and hydration must be made according to reasonable medical practice. (Those who proposed this requirement did not understand its paradoxical nature, i.e., that it is reasonable medical practice to honor the patient's wishes regarding any form of invasive treatment. Some would consider it poor practice, even battery, to do otherwise.)

Processing a Declaration

When a complete discussion of a patient's wishes is not possible, physicians and health care providers will turn to the document itself when it is presented.

Although the law does not state who is responsible for determining substantial compliance, it does state that declarations become "operative" when delivered to a physician or other health care provider. Thus, it would be prudent for physicians and other providers to understand the elements of a valid declaration and to review any declaration brought to them to assure that several conditions are met. In essence, three conditions are necessary to meet the letter and intent of the law: 1) there must be a reference to terminal condition, which is defined as an incurable or irreversible condition for which the administration of medical treatment will serve only to prolong the dying process; 2) there must be a statement of the declarant's wishes regarding artificially administered nutrition and hydration and/or a statement that the proxy is instructed to make such decisions; 3) the declarant's signature must be witnessed by two witnesses or a notary public, none of whom may be named as proxies, nor can the witnesses be persons having knowledge that they are entitled to any part of the declarant's estate [1]. These conditions, when met by a declaration, arguably fulfill the law's "substantial sameness" requirement.

When a declaration is delivered to a physician or other health care provider, the law requires the receiver to either accept it and make it a part of the medical record, or reject it, notify the declarant, and make a notation in the medical record that the person was notified of the physician's or other provider's unwillingness to comply [2]. It then is the declarant's responsibility to transfer to another physician or provider if he or she so chooses. If a physician receives a declaration, is unwilling to comply, and does not advise the declarant of this unwillingness prior to the declarant's incompetency, the physician is obliged to promptly take all reasonable steps to transfer the care of that patient to a physician willing to comply with the declaration [3].

In practice it would seem that the delivery of a declaration presents a unique opportunity for mutual discussion, not only of the patient's treatment wishes, but of both the patient's and the physician's values related to death and dying, especially if there is a conflict in values.

Although the declaration becomes "operative" when accepted and inserted into the medical record, in practice, a declaration will not become truly operative until the declarant has a terminal condition and is unable to make decisions for her- or himself.

This difference in the statutory and practice definition of operative illustrates two often-expressed concerns about implementation of a health care declaration: 1) How will physicians and other providers know about the declaration, especially in an emergency situation such as severe trauma, or if the declaration was prepared well in advance of terminal illness? 2) How can physicians and other providers be certain that the declaration will represent the person's wishes at the time of a terminal illness?

The first concern presents the more difficult procedural challenge, especially to medical records staff in physicians' offices, hospitals and nursing homes, and health maintenance organizations. There must be a means of making the presence of a declaration known to those who will be involved in the care of a patient in a terminal condition. A declarant's instructions must be transformed into a plan of care; the proxy, if one was named, must be consulted. The second concern is addressed in the revocation section of the law and will be discussed later in this article under "Implementing a Declaration."

The law also requires any physician or other health care provider, including a health care facility or

HMO, who receives a declaration and arranges for or transfers care to another provider to make "reasonable efforts" to identify and deliver the declaration to the subsequent provider and to ensure that an agreement with the patient to comply with the declaration will be honored.

These provisions will require physicians, health care facilities, and HMOs to develop new medical-records procedures or expand existing ones to assure that an "audit trail" exists for health care declarations.

Involvement of the Proxy

Physicians should advise their patients to take full advantage of the opportunity to appoint a health care proxy. While the proxy designation is not mandatory, it does provide a means by which individuals concerned enough to make a declaration can further ensure that their wishes are carried forward if they are later unable to participate in health care decisions. Under the law, the designated proxy is nominated to be guardian or conservator of the declarant should such an appointment be necessary.

The powers of the proxy become effective when the patient is no longer able to communicate his or her desires. The proxy is specifically given the authority to make health care decisions on behalf of a declarant to the same extent the declarant could. The law requires that the proxy act consistently with any desires expressed by the patient or otherwise made known to the proxy. In the absence of such knowledge, the proxy must act in the best interest of the declarant.

Implementing a Declaration

The declarant's instructions must be incorporated into a plan of care when a patient is in a terminal condition. Although the law does not address how a terminal condition is declared, a physician's diagnosis will be converted into a plan for terminal care. Practice would seem to dictate that the physician or other health care provider, rather than the patient or proxy, should be responsible for developing a care plan based on the wishes expressed in the declaration.

What if the patient's wishes change in the presence of a terminal condition? The law states that a declaration can be revoked in whole or in part at any time and in any manner, regardless of the declarant's physical or mental condition, when the *declarant* communicates that desire to the attending physician or other health care provider. Note that only the declarant can revoke his or her declaration, reflecting a strong expression of legislative support for patient autonomy. Although reasonable medical practice must prevail, we believe that the burden of proof is on the physician or other health care provider who seeks to override a patient's declaration. The medical and moral explanation for doing so should be well-reasoned and well-documented.

One provision, which refers to the revocation of a proxy appointment, may lead to miscommunication of a declarant's intentions. It states: "I understand that I have the right to revoke the appointment of the persons named above to act on my behalf at any time by communicating that decision to the proxy or my health care provider." It is conceivable that the proxy may conceal the fact that his or her proxy designation has been revoked, resulting in miscommunication of the declarant's intentions. This reinforces the importance of physician-declarant communication.

A final example further illustrates the importance of frequent review and timely conversion of the declaration into a care plan. There may be emergency situations in which a 911 or other emergency call results in an advanced-life-support response for a person with a health care declaration but without a physician's DNR order. Family members, and even some providers, may assume that the declaration will be sufficient to prevent or abort resuscitation efforts. This is a false and potentially harmful assumption for two reasons. First, paramedics and other first responders must operate under emergency medical services (EMS) protocol, which requires them to provide life support measures, at least until the person is transported to a hospital. In some counties, EMS guidelines provide that if a DNR order signed by the person's physician is presented, first responders are relieved of their legal duty to resuscitate.

A second, more widespread concern is that the mere presence of a declaration will be presumed to mean that the person does not want resuscitation or other life-sustaining treatment. No such presumption should ever be made by EMS providers or anyone in the medical community, because, under the law, a declaration could request that full life-sustaining measures be undertaken.

The law also states that there can be no presumption about the care and treatment of persons who have not prepared a declaration. (One provision in this "no-presumption" section of the law has raised concern among some physicians that the law requires artificial nutrition and hydration for terminally ill persons who have not prepared declarations stating otherwise: "Nothing in this chapter shall be construed to authorize or justify the withholding or withdrawal of artificially administered nutrition or hydration from any person who has not issued a declaration or designated a proxy under this chapter" [Section 12, subdivision 2]. This language is the result of an amendment proposed during the final hours of debate in the House of Representatives. Rep. David Bishop, IR-Rochester, chief author of the bill, asked Rep. Terry Dempsey, IR-New Ulm, who proposed the amendment, if the intent was to regulate medical practice related to nutrition and hydration. Dempsey said that it was not, that it was intended to clarify and strenghthen the no-presumption clause.) It is equally important that no presumptions be made about the intent and instructions within a declaration—the declaration must be carefully reviewed and discussed with the declarant and then translated into an individualized plan of care, which is the essence of the Adult Health Care Decisions Act.

Conclusion

Passage of the Adult Health Care Decisions Act represents a milestone for Minnesota and an important opportunity for the furtherance of physician-patient communication. Implementation of the law will no doubt present new challenges for Minnesota's physicians—challenges that can help strengthen the physician-patient relationship and its importance to society.

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Evelyn Van Allen is coordinator of the Minnesota Network for Institutional Ethics Committees.

Endnotes

[1] The law's requirements for executing a declaration, 145B.03, Subd. 2, call for the declaration to be signed by two witnesses or a notary public. This section of the law further states that neither of the witnesses nor the notary may be named as a proxy in the declaration. This same requirement appears in the suggested form.

A discrepancy exists between the "requirements" section of the law and the suggested form with respect to the relationship of the witnesses to the declarant's estate. The "requirements" section provides, "Neither of the witnesses can be someone who is entitled to any part of the estate of the declarant under a will then existing or by operation of law." The suggested form, within the certifying language required of the witness, states: "I am not named as a proxy by the declaration, and to the best of my knowledge, I am not entitled to any part of the estate of the declarant under a will or by operation of law" (emphasis added). In other words, the suggested language for the declaration holds witnesses to a lesser standard of knowledge than does the requirements section of the bill. For two reasons, it is the lesser standard, found in the declaration, that should control.

First, the language of the declaration will be in front of the declarant and witnesses, not language from another portion of the law. It is contrary to the canons of statutory construction to assume that the legislature intended that an act performed in accordance with one section of the law would be automatically rendered void by another section passed within the same bill.

Second, it cannot be assumed, absent extraordinary circumstances, that a declarant would knowingly invalidate his or her declaration by requesting that a person named in his or her will, or who might inherit in the absence of a will, act as a witness.

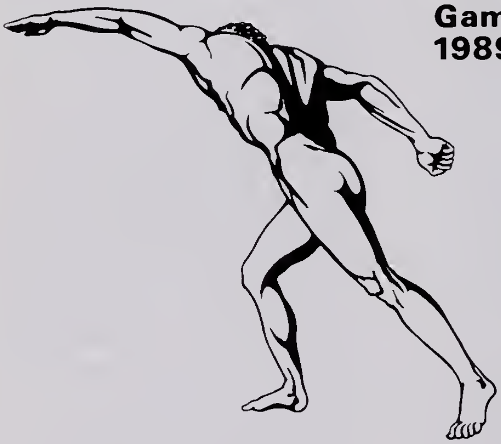
[2] "Comply," in the context of this law, can fairly be interpreted as "accept." This is so because the law itself does not contemplate that a declaration's instructions are "binding" upon the physician. In essence, the law requires physicians always to exercise reasonable medical judgment, not simply follow pre-written instructions without question.

[3] Taking reasonable steps in this regard can fairly be interpreted to mean that the physician identify for the family of the declarant, and a proxy if one is named, other physicians capable of providing the care required. Further, the physician should take steps to make those other physicians aware of the preferences or instructions in the declaration. This represents a reasonable interpretation even in light of the very sweeping statutory statement that the declining physician should take "all reasonable steps to secure" a physician willing to comply with the declaration. There is no indication that the legislature intended to *compel* the physician who has declined to comply to secure another physician willing to comply. Such a request could well be unreasonable in that it could require a physician to act contrary to standards of medical practice. The preferred interpretation is that the law directs the declining physician to relinquish care of the patient to another physician who has been identified as willing to comply with the declaration.

References

Minnesota Session Laws 1989, Chapter 3.

Health Care Providers' Responsibilities Under the Minnesota Adult Health Care Decisions Act. Minnesota Network for Institutional Ethics Committees, Minnesota Hospital Association 1989.



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operational functions affect the efficiency of the hospital. Operations are the integral parts of the organization. If operations don't function optimally, they impair day-to-day performance and may even compromise the outcome of health care.

We started looking at the business office, public affairs, admitting, discharge planning, human resources, and so on. There's no official standard that looks at the performance of the business office, or examines how user-friendly patient accounts are. Typically, no one really looks at the ethics or image of public affairs unless there's a crisis. No one periodically reviews the efficiency of the admitting office, or questions whether human resources activities are balanced and practical, and so on.

We looked at these operations with the idea of trying to strengthen, not criticize. There was the usual resistance. But it was a very positive effort, and we learned it's important to have a continuous self-appraisal of your hospital operations.

Next, we turned our approach to data disclosure, trying to improve our hospital information system.

REECE: *And how do you use numeric data in judging quality?*

LOOP: Outcome data are necessary to set standards and to evaluate efficacy of patient care. Most hospitals have the same sort of data collection system; a medical records system is a giant repository for data, but it doesn't provide specific information to use for outcome measures.

To make the data more relevant, we started a project called custom programming, whereby three medical and three surgical specialties requested information pertaining to the most common diagnoses seen in their departments. Pulmonary medicine requested information about emphysema, asthma, and pneumonia. Orthopedics requested information about total hip and total knee replacement. Obviously, these aren't all the diagnoses these departments treat, but these are high-volume diagnoses, and we wanted useful information regarding outcome pertaining to the most common diagnoses. Next, the departments requested from 15 to 25 variables on each one of these diagnoses. For example, they asked for patient characteristics, details of the operation, the surgeon or physician responsible for the patient, and certain clinical indicators, including hospital outcome.

> **"Quality has to come from the departments and from the individual practitioner. It can't be legislated."**

Surgery is a bit more objective, so it's easier to program than medicine. But in each field and with each diagnosis, you determine the mortality and the major morbidity, length of stay, charges, and whether the patient was readmitted.

These data are generated by medical records every month; thus, the departments have programmed the outcome variables and will receive the data back so they can set their standards based on these data. It's more participatory than the Big Brother approach, where somebody tells you what the standard ought to be. In fact, the standards will be higher when clinicians judge themselves rather than being judged by some generic clinical indicators proposed by outside agencies.

REECE: *I imagine the morale is higher, too, if the clinicians design their own standards.*

LOOP: Exactly. That's a very important point. Quality has to come from the departments and from the individual practitioner. It can't be legislated. That's the theme of my conversation with you.

The third thing that we've done is initiate a systematic appraisal system. We call it the annual professional review. It's been around for 10 to 15 years at the Cleveland Clinic. Every person on the staff is reviewed each year. That includes a peer review of clinical performance and administrative capability. Performance is judged in a variety of ways. How well does their office function? How well do they communicate? Are they collegial? Do they contribute to education and research?

First, the staff person rates him- or herself. Then the department head rates them. The division chairperson and a member of the board of governors also review that staff person. So at least four people are involved in the review. The review is designed not to criticize but to determine how the system can better help physicians meet their goals and expectations.

REECE: *Is there a big spread between those four ratings?*

LOOP: Usually they're all on target. Surprisingly, we have found that the staff members tend to rate themselves lower than their peers do.

REECE: *What about the fourth component of your system?*

LOOP: The fourth is the establishment of a quality office. There's a conception among hospitals that someone else reviews quality for the institution. But again, you can't regulate quality. It comes from within. Yet, one must coordinate all the quality efforts in the institution. This is the job of the quality office. The office understands that quality awareness has to come from each department and that outcome measures will differ among specialties. Quality can't be assured by a top-down management that sets standards or exhorts the staff to change certain practices.

It's necessary to show the individual why it's beneficial to address all aspects of quality care. You have to instill an awareness and devise quality measurements in each department. This is the job of the quality office.

The quality office has at its disposal an independent panel that can address any issue or contro-

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versy pertaining to the hospital. This is an unbiased sort of cross-managerial panel that may be called on to assess indications for a procedure or to evaluate new technology or to address patient satisfaction—all the issues pertaining to improved care, including outcome.

REECE: *How big is this panel?*

LOOP: This committee is composed of six members from diverse specialties. The quality office has a director and administrative staff. The head of the quality office should be a physician.

> **"Quality can't be assured by a top-down management that sets standards or exhorts the staff to change certain practices."**

REECE: *What about patients' perception of quality?*

LOOP: The very first thing in everybody's strategic plan ought to be to never have a dissatisfied patient. Patients can't recognize the methodologic features that I've talked about, but they can recognize quality. Quality may be difficult to define and hard to quantify, but patients are much more informed today than they were even five or 10 years ago. They want access, and they want better communication, particularly about risks, benefits, aftercare, and cost. They want the best outcome, given the diagnosis. They want education about disease prevention. It's our job to provide it.

REECE: *How do you measure their perceptions about quality?*

LOOP: We use patient satisfaction questionnaires that we continuously update. One must be careful about questionnaires that make you look too good. We want questionnaires to find out where the problems are. Are patient accounts representatives user-friendly? Are admitting and discharge plans satisfactory? We're not interested so much in whether the nurse spills the bedpan. We try to get the big picture in terms of patient satisfaction. These questionnaires have to be part of a strategic plan and should be reassessed and modified each year.

REECE: *Speaking of the big picture, through your quality office and this quantification program, are physicians getting a more unified vision of what quality is?*

LOOP: Physicians are finally aware that the quality movement is real and that it can be used to our advantage, not only to provide a better outcome for the patient, but to make the hospital better and more efficient.

REECE: *Can this program be used as a way of persuading payers that your institution is the place to go?*

LOOP: I'm not sure exactly how to do that. That certainly isn't a major goal. But the competition is fierce, and if providers can articulate how they have approached quality, and quantify it by better data disclosure, then it follows that a payer might be more interested in your service.

REECE: *Does the maturing of computer technology make this quantification easier?*

LOOP: It makes it more sophisticated. It makes data easier to process and display. But it also costs money.

REECE: *Do you have any idea how much money you have devoted to this?*

LOOP: I can tell you in people, and you can figure out how much it would cost. It takes five or six additional personnel in medical records to provide data on the top DRGs across all specialties. Somewhere between three and six people would be needed for better data disclosure in a 1,000-bed hospital.

REECE: *You've been leading this effort for two and one-half years. Do you feel it's evolving satisfactorily?*

LOOP: Yes, it has really gotten off the ground. We have turned the mechanics over to the quality office, but I still have a strong interest in the subject. Quality issues are at the top of the agenda at every staff meeting, and every decision we make has quality behind it.

REECE: *Do you foresee your program reaching the stage where you will include appropriateness criteria before a procedure is done?*

LOOP: I have not been very impressed with any appropriateness criteria I've seen. Maybe this is needed outside an institution like ours, because so many people are trying to beat the system. But when you know your own environment, you don't need appropriateness criteria.

REECE: *I'll be a little bit more specific. In Minnesota, Blue Cross and Blue Shield just introduced appropriateness criteria developed by a group called Health Sciences, Inc., using consensus panels of nine experts.*

LOOP: I'm aware of those consensus panels.

REECE: *But you're saying in a multispecialty environment where the rules are well known, appropriateness criteria probably would not be used as a tool to indicate the need for surgery.*

LOOP: I don't think so. It will be interesting to see what happens in Minnesota, but I suspect that the doctors won't like it—not because they are admitting the wrong kinds of people, but because it's too regimented. It doesn't allow for individual decisions on patients, and it may cause more trouble than it's worth.

REECE: *In closing, would you briefly summarize for our mostly Minnesota readers your efforts to quantify quality care at the Cleveland Clinic?*

LOOP: In summary, we have a four-part strategy to address quality at the Cleveland Clinic: first, a continuous appraisal of operations; second, an enhancement of data disclosure; third, an annual systematic appraisal; and fourth, the inception and maintenance of a quality office.

Our approach is based on the assumption that you really can't legislate quality; quality has to come from the provider. You can buy Health Care Financing Administration data disclosure, or you can buy computer software review packages, but that is Big Brother looking over the doctors' shoulders. Real changes in performance have to come from the physician, not only from the individual physician, but from the specialty departments in a hospital. Our approach is a different type of quality methodology for a hospital.

> **"You can buy Health Care Financing Administration data disclosure, or you can buy computer software review packages, but that is Big Brother looking over the doctors' shoulders."**

REECE: *And has your program had any measurable impact on quality?*

LOOP: We're not sure yet, but we've certainly increased awareness. We've instituted methodology to continuously address quality issues from the individual staff through the departments and into the quality office. We've initiated the most innovative and successful approaches for provider self-regulation that I've seen. The institution strives for excellence. It, too, wants to collectively improve, and improvement means having a better environment in which to practice medicine, which, in turn, will result in better outcomes for patients. ■

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NEWS CLIPS

RURAL HEALTH AWARD

The National Rural Health Association in May presented Raymond G. Christensen, M.D., of Moose Lake, with its 1989 Louis Gorin Award for outstanding achievement in rural health care. Christensen, a family practitioner, has been a leader in northeastern Minnesota's rural health care for the past 10 years. As well as leading a successful family practice, he has helped develop two regional health networks providing health care access to area residents.

The Northern Lakes Health Care Consortium, of which Christensen is the president, has united 20 regional hospitals and 50 clinics to form an effective physician-hospital partnership. Through its cooperative efforts, the consortium has aided development of a health care provider coalition to find ways of serving the uninsured, has helped to create a group purchasing network for medical supplies, and has helped initiate a marketing assistance program for rural hospitals and clinics.

MAFP PRESIDENT

Richard E. Streu, M.D., was installed president of the Minnesota Academy of Family Physicians at the organization's annual meeting on April 18 in Minneapolis. Streu is a family physician with Camden Physicians in Minneapolis, Maple Grove, and Plymouth.

Streu has been a member of the MAFP since 1964 and has held a number of offices, including chairman of the board and president of the academy's Hennepin County chapter.

MEDICAL GRAPHICS BOARD

Earl Bakken, the founder of Medtronic Inc., who directed it to achieve Fortune 500 status, was elected in May to serve on the board of directors of Medical Graphics Corp. of Vadnais Heights. Medical Graphics makes computerized diagnostic systems for the prevention, early detection, and treatment of heart and lung disease.

Besides being a Medtronic director, Bakken is also chairman of the board of the Medical Alley Association.

MENOPAUSE AND LIFE EXPECTANCY

A University of Minnesota study has shown a correlation between early menopause and a shorter life expectancy. The report, which appeared in the June issue of the *American Journal of Public Health*, studied 5,287 women who went through menopause naturally and 3,166 women who had their ovaries surgically removed. The researchers—seven University of Minnesota scientists, including epidemiologist David Snowdon, M.D., and gerentologist and dean of the university's School of Public Health, Robert Kane, M.D., and two researchers from Loma Linda University in California—determined that a woman's life expectancy appears to decrease about six months for each year of menopause before the age of 50. The researchers determined that there was no effect on life expectancy for the women in their 40s whose ovaries were surgically removed.

NEW HEART ASSIST DEVICE

For the first time in Minnesota, surgeons have implanted a Novacor Left Ventricular Assist System (LVAS) to keep a patient alive until a human heart is available for transplantation.

Minneapolis Heart Institute surgeons implanted the device in a 51-year-old man in May at Abbott Northwestern Hospital.

The Novacor, an electrically powered heart assist device, is designed to sustain a patient by assisting in the pumping of blood into the weakened left ventricle and restoring adequate circulation to major organs. The Novacor is under study by the Minneapolis Heart Institute physicians at Abbott Northwestern and 15 other selected centers around the United States.

The Novacor LVAS differs from previous heart assist devices in that it is implanted into the left abdomen, near the lower portion of the heart, rather than remaining outside the body, thereby allowing greater movement by the patient.

SLOW HMO GROWTH

Health Maintenance Organizations (HMOs) posted a 5.4 percent annual growth rate as of January 1, 1989, the second lowest annual rate of increase in recorded HMO history. (The lowest annual growth rate was 5.2 percent in 1977.) Enrollment in pure HMOs reached 31,940,494, with 635,660 members added in the last half of 1988. There was also a sharp drop in the number of HMOs, from 643 to 607 as of January 1, 1989, a net decrease of 36 plans since June 30, 1988. These are some of the findings released in May by InterStudy, the Excelsior, Minnesota, nonprofit health care research organization.

Enrollment in open-ended HMOs, in contrast, grew substantially (27.8%)

to 616,565 as of January 1, 1989, with 134,207 members added since June 30, 1988. Twenty-six new open-ended HMOs were reported, bringing the total number of HMOs offering this type of arrangement to 70. The open-ended HMO allows enrollees to use non-HMO providers for a higher consumer contribution (typically a deductible and co-insurance).

FATTY DIETS DURING PREGNANCY

Women who eat diets high in fat during pregnancy may be increasing the risk of their unborn child developing cancer of the reproductive system later in life, a researcher announced after studying tumors in mice. Bruce Walker, M.D., of Michigan State University, studied 261 female mice over their two- to three-year life spans and found that of the offspring of mice fed a high-fat diet during pregnancy—equivalent in fat content to a typical American diet—54 percent developed reproductive-system tumors.

Among offspring of mice fed a low-fat diet during pregnancy—equivalent to a typical Japanese diet—only 21 percent developed such tumors. Walker said this could explain why American women are much more likely to develop breast cancer than Japanese women.

Walker announced his findings at a meeting of the American Association for Cancer Research in San Francisco in May.

WHO NEEDS DIETING?

Exercise alone, regardless of diet, reduces fat in the bloodstream and may reduce the risk of heart disease, a recent study indicates. Jan Breslow, M.D., of Rockefeller University in New York City, and colleagues at Adelphi University in Garden City, New York, and from Israel, studied six men who were put on a seven-week exercise plan while increasing their calorie intake to maintain a constant body weight. The researchers found reduced levels of the fat triglyceride and of lipoproteins in the blood of all six men. The study appeared in the May issue of *Circulation*, published by the American Heart Association.

PRESCRIPTION DRUG MISUSE

Forty-six percent of Americans under the age of 18 are not taking their medication correctly, according to the National Council on Patient Information. Incorrect use included stopping treatment too soon, exceeding or falling short of prescribed dosages, or not taking any medication at all.

DRUG SUBSTITUTIONS

As many as 1.2 million patients nationwide may have been adversely affected because of drugs substituted for the prescriptions written by their physicians, physician survey results reported in the May 12 *American Medical News* indicated.

The survey, "Physicians and Drug Prescribing Issues in Hospitals and HMOs," was prepared by the Gallup organization for the AMA and conducted in December 1988 and January 1989. Telephone interviews were conducted with 814 randomly selected physicians in gen-

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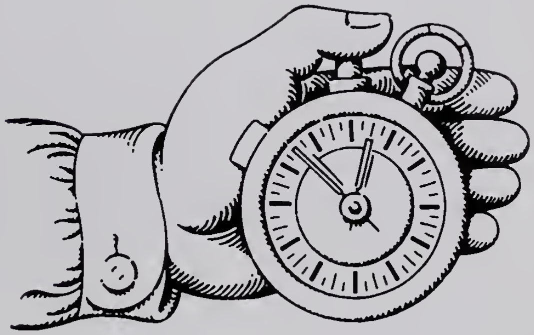

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eral/family practice, internal medicine, or cardiology who were currently seeing patients and routinely writing prescriptions. They were asked to estimate the extent to which the recovery of their patients had been adversely affected by drug substitution.

The physicians estimated that the recovery of 4,641 patients was delayed or impaired as a result of drug substitutions. Extrapolated to all physicians nationwide, the results indicate that 1.2 million patients may have suffered because of prescription drug substitutions, the report says. These results, it should be noted, are based on physician impressions that may or may not be accurate.

ACETAMINOPHEN RISKS

Adults who regularly take daily doses of acetaminophen (sold under the brand names Tylenol, Anacin-3, Datril, and others) appear to triple their risk of developing serious kidney disease, according to a recent study by epidemiologist Dale Sandler, M.D., and colleagues at the National Institute of Environmental Health Sciences. The study, published in the May 11 *New England Journal of Medicine*, assessed the risk of kidney disease in people with a history of phenacetin, acetaminophen, and aspirin use. It found that weekly or less frequent use of acetaminophen did not increase the risk of developing kidney disease.

The researchers said the results should be considered tentative until further study is done, but a recent German study showed similar results.

WORKERS' HEALTH COSTS

A growing number of U.S. companies plan to require their workers to pick up a larger share of the health care tab, Richard Heckert, chairman of the National Association of Manufacturers, said in May. Heckert said this trend is in response to the increasing burden of health care costs on industries. A survey of the association's members conducted early this year revealed that health insurance costs averaged 37 percent of the companies' net profits.

DRINKING, SMOKING, AND ABSENTEEISM

Job attendance rates are not related to whether a worker smokes or drinks, a recent report by the National Chamber Foundation revealed. The report casts doubts on efforts by businesses to try to determine the risk of absenteeism in a worker by using group characteristics. The report was based on 33,000 responses to surveys conducted by the National Center for Health Statistics in 1983 and 1985.

COSTS OF BIRTHS UP

The average cost of a normal, vaginal birth in the United States is $2,560, up 25 percent from 1982, according to the Health Insurance Association of America. The rural Midwest has the lowest delivery cost in the nation—$2,250, and delivery costs in major metropolitan centers in the West add about $530 to the national average, the association reported.

Continuing Medical Education

Summer-Fall Conference Schedule

Mark your calendar now for these upcoming conferences:

1989	
August 25-26	Clinical Applications of Musculoskeletal Allograft, St. Paul
September 11-22	7th Annual Occupational Health & Safety Institute, St. Paul
September 22	Women in Transition, St. Paul
September 29	Chemical Esposures, Emergency Response & Management, St. Paul
October 4-6	Pulmonary Function Testing Workshop, St. Paul
October 13	The Anxious Patient: Anxiety Disorders in Primary Care, St. Paul
October 19-21	5th Ramsey Trauma Conference, St. Paul
November 10	Neurology Update for the Primary Care Physician, St. Paul
November 16-18	Clinical Strategies in Primary Care Medicine, St. Paul
December 1	Dual Disorders—Mental Illness & Mental Retardation, St. Paul
December 6-8	Annual Cardiopulmonary Medicine Update, St. Paul

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JULY 1989

3-14 **Resuscitation Course** Hennepin Faculty Associates; Hennepin County Medical Center, Minneapolis, Minnesota. CONTACT: Eugenia Kassar, Hennepin Faculty Associates, 701 Park Avenue, Suite 4220, Minneapolis, Minnesota 55415; (612) 347-2075.

10-14 **Team Management of Diabetes Mellitus** International Diabetes Center; International Diabetes Center, Park Nicollet Medical Foundation, Minneapolis, Minnesota. CONTACT: Cindy Poppitz, International Diabetes Center, 5000 West 39th Street, Minneapolis, Minnesota 55416; (612) 927-3393.

13-14 **Advanced Trauma Life Support** Hennepin Faculty Associates; Hennepin County Medical Center, Minneapolis, Minnesota. CONTACT: Eugenia Kassar, Hennepin Faculty Associates, 701 Park Avenue, Suite 4220, Minneapolis, Minnesota 55415; (612) 347-2075.

17-21 **Team Management of Diabetes Mellitus** International Diabetes Center; International Diabetes Center, Park Nicollet Medical Foundation, Minneapolis, Minnesota. CONTACT: Cindy Poppitz, International Diabetes Center, 5000 West 39th Street, Minneapolis, Minnesota 55416; (612) 927-3393.

21-22 **Cutaneous Laser Surgery** Abbott Northwestern Hospital; Abbott Northwestern Hospital, Minneapolis, Minnesota. CONTACT: Tim Schuh, CME Office, Abbott Northwestern Hospital, 800 East 28th Street, Minneapolis, Minnesota, 55407; (612) 863-5461.

Jul 23-Aug 4 **The Danube River** North Central Medical Conference. CONTACT: North Central Medical Conference, 1845 Hampshire Avenue, Suite 200, St. Paul, Minnesota 55116.

Jul 31-Aug 4 **Team Management of Diabetes Mellitus** International Diabetes Center; International Diabetes Center, Park Nicollet Medical Foundation, Minneapolis, Minnesota. CONTACT: Cindy Poppitz, International Diabetes Center, 5000 West 39th Street, Minneapolis, Minnesota 55416; (612) 927-3393.

AUGUST 1989

11-12 **Vascular Laser Surgery: A "Hands-On" Training Program** Abbott Northwestern Hospital; Abbott Northwestern Hospital, Minneapolis, Minnesota. CONTACT: Tim Schuh, CME Office, Abbott Northwestern Hospital, 800 East 28th Street, Minneapolis, Minnesota 55407; (612) 863-5461.

11-13 **Arrowhead Region Anesthesia Seminar** Miller Dwan Medical Center; Holiday Inn, Duluth, Minnesota. CONTACT: Jim Anderson, CRNA, Miller Dwan Medical Center, 502 East 2nd Street, Duluth, Minnesota 55805; (218) 720-1121.

25 **Second Annual Neurology Conference** Hennepin Faculty Associates; Hennepin County Medical Center, Minneapolis, Minnesota. CONTACT: Eugenia Kassar, Hennepin Faculty Associates, 701 Park Avenue, Suite 4220, Minneapolis, Minnesota 55415; (612) 347-2075.

Aug 28-Sep 1 **Team Management of Diabetes Mellitus** International Diabetes Center; International Diabetes Center, Park Nicollet Medical Foundation, Minneapolis, Minnesota. CONTACT: Cindy Poppitz, International Diabetes Center, 5000 West 39th Street, Minneapolis, Minnesota 55416; (612) 927-3393.

SEPTEMBER 1989

8-9 **Mayo Surgical Symposium** Mayo Clinic/Mayo Foundation; Mayo Clinic, Rochester, Minnesota. CONTACT: Rita Kunz, Mayo Clinic, Postgraduate Courses, 200 First Street SW, Rochester, Minnesota 55905; (507) 284-2509.

15-16 **General Laser Surgery: A"Hands-On" Training Program** Abbott Northwestern Hospital; Abbott Northwestern Hospital, Minneapolis, Minnesota. CONTACT: Tim Schuh, CME Office, Abbott Northwestern Hospital, 800 East 28th Street, Minneapolis, Minnesota 55407; (612) 863-5461.

16 **Saturday Sports Medicine Symposium** Governor's Council on Physical Fitness and Sport; Lakeview Memorial Hospital, Stillwater, Minnesota. CONTACT: Robert Johnson, M.D., 5 West Lake Street, Minneapolis, Minnesota 55408; (612) 824-1647.

18 **Team Management of Diabetes Mellitus** International Diabetes Center; International Diabetes Center, Park Nicollet Medical Foundation, Minneapolis, Minnesota. CONTACT: Cindy Poppitz, International Diabetes Center, 5000 West 39th Street, Minneapolis, Minnesota 55416; (612) 927-3393.

Health One Continuing Medical Education

July 13
"Pediatric Update" by Jim McCord, M.D. – 12:00 noon, Sioux Valley Hospital, New Ulm, MN

August 3
"Management of Congestive Heart Failure – Use of Newer Drugs" by Brian Anderson, M.D. – Long Prairie Memorial Hospital – 1:00 p.m.

August 10
"Hypertension" by Richard Sweet, M.D. – 12:00 noon, Sioux Valley Hospital, New Ulm, MN

September 13
"Urinary Stones" by Ali Kahim, M.D., Health Central of Buffalo – 5:30 p.m.

September 13
Practice Management Seminar – "Physician Recruitment" – site to be announced

September 14
"Depression" by Deane Manolis, M.D. – 12:00 noon, Sioux Valley Hospital, New Ulm, MN

September 23
Physician/Nursing Ethics Conference – United Conference Center

September 26
"Abnormal Pap/Human Papilloma Virus" by John Savage, M.D. – River Falls Area Hospital – 7:30 a.m.

September 27
Consultant Network Conference – David Pearce Snyder, Consulting Futurist – United Hospital

October 7
Career Fair – Metropolitan-Mount Sinai Medical Center – Phillips Campus – An opportunity for residents and clinical fellows to explore recruitment opportunities in the midwest, as well as receive educational information concerning the business aspects of medical practice.

For further information, contact Beth Murphy, CME Manager, Medical Affairs Division, Health One. (612) 574-7716.

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Brief Summary

Consult the package literature for complete information.

Indications and Usage: Axid is indicated for up to eight weeks for the treatment of active duodenal ulcer. In most patients, the ulcer will heal within four weeks.

Axid is indicated for maintenance therapy for duodenal ulcer patients at a reduced dosage of 150 mg h.s. after healing of an active duodenal ulcer. The consequences of continuous therapy with Axid for longer than one year are not known.

Contraindication: Axid is contraindicated in patients with known hypersensitivity to the drug and should be used with caution in patients with hypersensitivity to other H_2-receptor antagonists.

Precautions: *General* – 1. Symptomatic response to nizatidine therapy does not preclude the presence of gastric malignancy.

2. Because nizatidine is excreted primarily by the kidney, dosage should be reduced in patients with moderate to severe renal insufficiency

3. Pharmacokinetic studies in patients with hepatorenal syndrome have not been done. Part of the dose of nizatidine is metabolized in the liver. In patients with normal renal function and uncomplicated hepatic dysfunction, the disposition of nizatidine is similar to that in normal subjects.

Laboratory Tests – False-positive tests for urobilinogen with Multistix® may occur during therapy with nizatidine.

Drug Interactions – No interactions have been observed between Axid and theophylline, chlordiazepoxide, lorazepam, lidocaine, phenytoin, and warfarin. Axid does not inhibit the cytochrome P-450-linked drug-metabolizing enzyme system; therefore, drug interactions mediated by inhibition of hepatic metabolism are not expected to occur. In patients given very high doses (3,900 mg) of aspirin daily, increases in serum salicylate levels were seen when nizatidine, 150 mg b.i.d., was administered concurrently

Carcinogenesis, Mutagenesis, Impairment of Fertility – A two-year oral carcinogenicity study in rats with doses as high as 500 mg/kg/day (about 80 times the recommended daily therapeutic dose) showed no evidence of a carcinogenic effect. There was a dose-related increase in the density of enterochromaffin-like (ECL) cells in the gastric oxyntic mucosa. In a two-year study in mice, there was no evidence of a carcinogenic effect in male mice; although hyperplastic nodules of the liver were increased in the high-dose males as compared with placebo. Female mice given the high dose of Axid (2,000 mg/kg/day, about 330 times the human dose) showed marginally statistically significant increases in hepatic carcinoma and hepatic nodular hyperplasia with no numerical increase seen in any of the other dose groups. The rate of hepatic carcinoma in the high-dose animals was within the historical control limits seen for the strain of mice used. The female mice were given a dose larger than the maximum tolerated dose, as indicated by excessive (30%) weight decrement as compared with concurrent controls and evidence of mild liver injury (transaminase elevations). The occurrence of a marginal finding at high dose only in animals given an excessive and somewhat hepatotoxic dose, with no evidence of a carcinogenic effect in rats, male mice, and female mice (given up to 360 mg/kg/day, about 60 times the human dose), and a negative mutagenicity battery are not considered evidence of a carcinogenic potential for Axid.

Axid was not mutagenic in a battery of tests performed to evaluate its potential genetic toxicity, including bacterial mutation tests, unscheduled DNA synthesis, sister chromatid exchange, mouse lymphoma assay, chromosome aberration tests, and a micronucleus test.

In a two-generation, perinatal and postnatal fertility study in rats, doses of nizatidine up to 650 mg/kg/day produced no adverse effects on the reproductive performance of parental animals or their progeny.

Pregnancy – Teratogenic Effects – Pregnancy Category C – Oral reproduction studies in rats at doses up to 300 times the human dose and in Dutch Belted rabbits at doses up to 55 times the human dose revealed no evidence of impaired fertility or teratogenic effect; but, at a dose equivalent to 300 times the human dose, treated rabbits had abortions, decreased number of live fetuses, and depressed fetal weights. On intravenous administration to pregnant New Zealand White rabbits, nizatidine at 20 mg/kg produced cardiac enlargement, coarctation of the aortic arch, and cutaneous edema in one fetus and at 50 mg/kg it produced ventricular anomaly, distended abdomen, spina bifida, hydrocephaly, and enlarged heart in one fetus. There are, however, no adequate and well-controlled studies in pregnant women. It is also not known whether nizatidine can cause fetal harm when administered to a pregnant woman or can affect reproduction capacity. Nizatidine should be used during pregnancy only if the potential benefit justifies the potential risk to the fetus.

Nursing Mothers – Studies conducted in lactating women have shown that <0.1% of the administered oral dose of nizatidine is secreted in human milk in proportion to plasma concentrations. Caution should be exercised when administering nizatidine to a nursing mother.

Pediatric Use – Safety and effectiveness in children have not been established

Use in Elderly Patients – Ulcer healing rates in elderly patients are similar to those in younger age groups. The incidence rates of adverse events and laboratory test abnormalities are also similar to those seen in other age groups. Age alone may not be an important factor in the disposition of nizatidine. Elderly patients may have reduced renal function.

Adverse Reactions: Clinical trials of nizatidine included almost 5,000 patients given nizatidine in studies of varying durations. Domestic placebo-controlled trials included over 1,900 patients given nizatidine and over 1,300 given placebo. Among reported adverse events in the domestic placebo-controlled trials, sweating (1% vs 0.2%), urticaria (0.5% vs < 0.01%), and somnolence (2.4% vs 1.3%) were significantly more common in the nizatidine group. A variety of less common events was also reported, it was not possible to determine whether these were caused by nizatidine.

Hepatic – Hepatocellular injury, evidenced by elevated liver enzyme tests (SGOT [AST], SGPT [ALT], or alkaline phosphatase), occurred in some patients and was possibly or probably related to nizatidine. In some cases, there was marked elevation of SGOT, SGPT enzymes (greater than 500 IU/L) and, in a single instance, SGPT was greater than 2,000 IU/L. The overall rate of occurrences of elevated liver enzymes and elevations to three times the upper limit of normal, however, did not significantly differ from the rate of liver enzyme abnormalities in placebo-treated patients. All abnormalities were reversible after discontinuation of Axid.

Cardiovascular – In clinical pharmacology studies, short episodes of asymptomatic ventricular tachycardia occurred in two individuals administered Axid and in three untreated subjects.

CNS – Rare cases of reversible mental confusion have been reported.

Endocrine – Clinical pharmacology studies and controlled clinical trials showed no evidence of antiandrogenic activity due to Axid. Impotence and decreased libido were reported with equal frequency by patients who received Axid and by those given placebo. Rare reports of gynecomastia occurred.

Hematologic – Fatal thrombocytopenia was reported in a patient who was treated with Axid and another H_2-receptor antagonist. On previous occasions, this patient had experienced thrombocytopenia while taking other drugs. Rare cases of thrombocytopenic purpura have been reported.

Integumental – Sweating and urticaria were reported significantly more frequently in nizatidine- than in placebo-treated patients. Rash and exfoliative dermatitis were also reported.

Hypersensitivity – As with other H_2-receptor antagonists, rare cases of anaphylaxis following administration of nizatidine have been reported. Because cross-sensitivity in this class of compounds has been observed, H_2-receptor antagonists should not be administered to individuals with a history of previous hypersensitivity to these agents. Rare episodes of hypersensitivity reactions (eg, bronchospasm, laryngeal edema, rash, and eosinophilia) have been reported.

Other – Hyperuricemia unassociated with gout or nephrolithiasis was reported. Eosinophilia, fever, and nausea related to nizatidine administration have been reported.

Overdosage: Overdoses of Axid have been reported rarely. The following is provided to serve as a guide should such an overdose be encountered.

Signs and Symptoms – There is little clinical experience with overdosage of Axid in humans. Test animals that received large doses of nizatidine have exhibited cholinergic-type effects, including lacrimation, salivation, emesis, miosis, and diarrhea. Single oral doses of 800 mg/kg in dogs and of 1,200 mg/kg in monkeys were not lethal. Intravenous median lethal doses in the rat and mouse were 301 mg/kg and 232 mg/kg respectively.

Treatment – To obtain up-to-date information about the treatment of overdose, a good resource is your certified regional Poison Control Center. Telephone numbers of certified poison control centers are listed in the *Physicians' Desk Reference (PDR)*. In managing overdosage, consider the possibility of multiple drug overdoses, interaction among drugs, and unusual drug kinetics in your patient.

If overdosage occurs, use of activated charcoal, emesis, or lavage should be considered along with clinical monitoring and supportive therapy. Renal dialysis for four to six hours increased plasma clearance.

PV 2096 AMP [013089]

Additional information available to the profession on request.

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[1] Data on file, Lilly Research Laboratories.

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Family Physician: Dynamic 13-physician, 3-office, single-specialty practice in northwest Minneapolis suburbs seeking additional associate, BE/BC; OB available. Competitive salary, full benefits, reasonable call and hospital rounds schedule. Contact: Dr. Ken Kephart, Northwest Family Physicians; (612) 476-6776. (R)

Urgent: FP/GP physicians needed for practice opportunities within ARIZONA and throughout the United States. Excellent group and solo opportunities available. For additional information, call (602) 990-8080; or send CV in confidence to: Mitchell & Associates, Inc., PO Box 1804, Scottsdale, Arizona 85252. (*R)

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Mankato Clinic, Ltd. is seeking BE/BC physicians in the following specialties: allergy, dermatology, invasive cardiology, oncology, urology, ophthalmology, and general internal medicine. The Mankato Clinic is a 38-doctor multispecialty group practice in south-central Minnesota with a trade area population of 150,000. Guaranteed salary first year, incentive thereafter with full range of benefits and liberal time off. For more information, call Roger Greenwald, Administrator, or Dr. B.C. McGregor, (507) 625-1811 or write 501 Holly Lane, Mankato, Minnesota 56001. (R)

Family Physician needed to join group of five family physicians in St. Peter, Minnesota, population 9,000, located one hour south of Minneapolis. Contact: Curt Stolee, M.D., or D.A. Nygard, Administrator, St. Peter Clinic, Ltd., 622 Sunrise Drive, St. Peter, Minnesota 56082; (507) 931-2110. (R)

Bemidji, Minnesota: Excellent opportunities for well-trained physicians. We are seeking board-certified/board-eligible physicians in orthopedic surgery, family practice, ophthalmology, pediatrics, and otolaryngology to join a young 24-physician multispecialty group practice located in northern Minnesota. Competitive salary guarantee plus incentive first year and excellent benefits. An excellent opportunity for a physician to enjoy practice in the center of hunting, fishing, and clear air. Please respond with CV to: C.C. Lowery, Administrator, Bemidji Clinic-MeritCare, 1233 34th Street NW, Bemidji, Minnesota 56601; (218) 751-1280. (R)

Family Physician to join medical staff of two family practitioners in well-established rural clinic in central Minnesota, along the southern shores of beautiful Mille Lacs Lake. Excellent subspecialty support, progressive community hospital, diverse patient population. Call collect, (612) 676-3661, or write c/o Nancy Swenson, Clinic Manager, Mille Lacs Family Health Center, PO Box 53, Isle, Minnesota 56342. (R)

Outstanding Opportunity for a BE/BC Family Physician to join a progressive medical community with eight physicians oriented to family practice. Details will be given by contacting: Dr. Tim Schmitt, Wadena Medical Center; (218) 631-1360; or Jim Lawson, Administrator, Tri-County Hospital, Wadena, Minnesota 56482; (218) 631-3510. (R)

Internist BE/BC: North Shore Internal Medicine, PC is seeking an energetic general internist to enjoy the benefits of a rapidly expanding practice. New office close to hospital. Michigan State Medical School Campus. Send resume to: 2420 First Avenue South, Escanaba, Michigan 49829; (906) 786-1563. (R)

BE/BC Psychiatrist, Orthopedic Surgeon: Excellent opportunity to join a well-established, progressive, 19-physician multispecialty group (9 FP, 4 IM, 2 OB/GYN, 1 Peds, 2 Surg) located in an economically sound community of 20,000 (drawing area of 30,000), 65 miles south of Twin Cities. Full membership after one year. One FP retiring in 1987. Competitive salary and fringe benefit package. Contact: Terry Tone, Clinic Manager, 134 Southview, Owatonna, Minnesota 55060; (507) 451-1120. (R)

Psychiatrist: An opening exists for a general psychiatrist with Hennepin Faculty Associates. Salary and benefits are generous. Requirements are board eligibility, Minnesota licensure and potential for appointment in the Department of Psychiatry at the University of Minnesota. Position involves mainly inpatient and some outpatient care of acutely ill patients. This would be in association with over a dozen other full-time psychiatrists engaged in clinical care, teaching, research and forensics. The University of Minnesota and Hennepin County Medical Center are equal opportunity educators and employers and specifically invite and encourage applications from women and minorities. Contact: William W. Jepson, M.D., Chief of Psychiatry, Hennepin County Medical Center, 701 Park Avenue South, Minneapolis, Minnesota 55415; (612) 347-5764. (R)

Family Practitioner to join a progressive 12-physician group practice. Rural college town 30 miles from St. Paul, Minnesota, with community hospital. Contact: R.M. Hammer, M.D., River Falls, Wisconsin 54022; (715) 425-6701 or (612) 436-8809. (*R)

Family Physician: Full-time or part-time positions. staffing Convenience Care Medical Center. Competitive salary plus malpractice insurance. Call or write: Richard Gebhart, M.D., Grove Square Convenience Care, 13800 83rd Way, Maple Grove, Minnesota 55369; home (612) 420-6912, or work (612) 420-5822. 9-9/89

St. Cloud— Minnesota's fastest growing city—family practice physician, two pediatricians, two ob/gyns, BE/BC to join supportive primary care staff in a growing, successful, and innovative prepaid practice. New clinic facility. Full range of fringe benefits (competitive salary, liberal vacation, two weeks' education leave, retirement fund, etc.). Contact: Physician Services, Central Minnesota Group Health Plan, 1245 15th Street North, St. Cloud, Minnesota 56303; (612) 253-5220. An equal opportunity employer. (R)

Robert William James & Associates has been providing physician search services to client organizations since 1977. We are currently seeking physicians in virtually all specialty areas for health care

Bemidji Clinic
MeritCare

Bemidji Clinic—MeritCare, a 25 physician multi-specialty group, is currently seeking to add BE/BC physicians in the following specialties for Bemidji and regional area:

OTORHINOLARYNGOLOGY
OPHTHALMOLOGY
PEDIATRICS
FAMILY PRACTICE

Bemidji Clinic
MeritCare

For more information contact
Mr. C.C. Lowery, Administrator
1233 34th Street, NW
Bemidji, MN 56601

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General Internal Medicine Opportunities

Group Health, Inc. offers excellent opportunities for BC/BE Internists. We provide a balanced lifestyle with practice scheduling flexibility and the opportunity to practice medicine without the business concerns of managing an office.

The Internal Medicine Department is staffed by over 50 BC/BE physicians. You will practice in one of 15 state-of-the-art full service medical centers—each of which has on-sited pharmacy, lab and radiology.

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- Coronary heart disease: Evidence for the role of blood cholesterol
- Lipid metabolism and hypercholesterolemia
- Classification of patients by total and LDL-cholesterol
- Testing for high blood cholesterol
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- The importance of a multidisciplinary team approach

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Mail to: National Cholesterol Education Program–Box CME
4733 Bethesda Avenue
Suite 530
Bethesda, MD 20814

The National Cholesterol Education Program
Coordinated by the National Heart, Lung, and Blood Institute

clients throughout the country. Fees are assumed by our clients. All inquiries are handled in a professional and confidential manner. For further information, contact: John S. Shonyo, CPC, Physician Recruiter, Robert William James & Associates, 2360 North Broadway, Rochester, Minnesota 55904; (507) 285-9270. Offices located nationwide. (*R)

Physicians-All Specialties: Excellent opportunities nationwide, many in Minnesota. We specialize ONLY in physician placement! Contact: Earl Czech (612) 754-2556. North Central Staff Services, Inc., 11000 Central Avenue NE, #207, Minneapolis, Minnesota 55434. 6-9/89

Arizona-based Physician Recruitment firm has quality opportunities NATIONWIDE. Available positions in primary care and surgical specialities: OB/GYN, IM, ORTHOPEDICS, ENT. "Quality Physicians for Quality Clients since 1972." Call (602) 990-8080 or send CV to: Mitchell & Associates, Inc., PO Box 1804, Scottsdale, Arizona 85252. (*R)

Waseca, Minnesota: Family practice physician to join four family practitioners. Population 8,000. One hour south of Burnsville Center; lakes; industry. Salary negotiable. Clinic-adjacent hospital. Ample free time to enjoy family life. Contact: James W. Dey, M.D., or Ruth Hawker, 501 North State Street, Waseca, Minnesota 56093; (507) 835-3110. (R)

Internal Medicine: Wanted, locum tenens on intermittent or periodic basis; or associate wanted; or will sell. Phone (612) 252-7790. Top salary—you name it. (R)

Immediate Opening: Family practice physician BC/BE to replace retiring physician and join our team of caring professionals providing primary care medical services in a well-established facility. Competitive salary plus incentive pay, choice location, and excellent benefits (malpractice insurance included). Interested candidates should send CV to: Robbinsdale Clinic, 3819 West Broadway, Minneapolis, Minnesota 55422; (612) 533-2534. (R)

FP Needed to join four in growing practice in city of 40,000. We provide full spectrum of FP services. Opportunity for full partnership after one year. Contact: Tony Giefer, M.D., 1695 LorRay Drive, North Mankato, Minnesota 56001; (507) 387-8231. 9-11/89

Great Location! 1/2-acre corner lot with two-bedroom home. Located across from Unity Hospital complex. Zoned C3. $152,000. Additional property available. Call: Bonnie Ryhn at (612) 464-7070, ERA MUSKE CO. 4-8/89

Family Practice—Hospital-Sponsored Clinic Opportunity: Dynamic, growth-oriented hospital in beautiful north central Wisconsin is seeking two family physicians for a new clinic facility currently being constructed. The administrative burdens of medical practice will be minimized in this hospital-managed clinic. The hospital has committed to an income and benefit package that is significantly higher than similar opportunities. Package includes base income, incentive bonus, malpractice, disability, signing bonus, and student loan reduction/forgiveness program. All relocation costs will be borne by the hospital. Please contact: Dan McCormick, President, Allen McCormick, France Place, Suite 920, 3601 Minnesota Drive, Bloomington, Minnesota 55435; (612) 835-5123. (R)

Family Physician, BC/BE wanted to join three board-certified MDs in well-established, expanding group practice. Enjoy a progressive, rural city within easy reach of St. Cloud and Minneapolis. Contact: Dr. Jim Mohs, Melrose Clinic, 603 West Main Street, Melrose, Minnesota 56352; office: (612) 256-4228, home: (612) 256-3488. (R)

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Multi-specialty group of 75 physicians has practice opportunities in the following areas:

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- INTERNAL MEDICINE
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  - Endocrinologist
  - Rheumatologist
- OBSTETRICS/GYNECOLOGY
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Large referral area.
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MeritCare

Fargo Clinic—Meritcare, a 240 physician multi-specialty group, is seeking BE/BC physicians in the following specialties for Fargo-Moorhead and the regional area:

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CARDIOLOGY
CHILD PSYCHIATRY
GERIATRICS
PEDIATRIC ORTHOPEDIC SURGERY
PULMONOLOGY/CRITICAL CARE
RADIOLOGY-THERAPEUTIC & DIAGNOSTIC
ANESTHESIOLOGY
CHILD NEUROLOGY
FAMILY PRACTICE
NEUROSURGERY

Fargo Clinic
MeritCare

Contact Robert C. Montgomery, M.D.,
Chairman, Physician Recruitment
737 Broadway, Fargo, ND 58123

any need including taxes, debts, investments, etc. No points or fees. Competitive rates. Level payments up to six years. Call toll free: 1-800-331-4952, MediVersal, Department 114. (R)

Exciting Pediatric Opportunity: Full or part time. East-metro practice offering stimulating combination of primary care, teaching, and consultative services. Excellent salary and benefits. Inquiries to Ruth at (612) 636-4122. (R)

Internists: Are you ready for a change? Regular hours! Weekends free! Competitive salary! Excellent benefits! Our company has a full-time position available in insurance medicine. Primary duties involve answering medical questions for underwriters or claims reviewers, interpreting ECGs and chest X-rays, and occasional physical examinations. If interested, send a resume in confidence to: The Medical Department, PO Box 1143, Minneapolis, Minnesota 55440. 2-7/89

New 3-4 Bedroom Luxury Cottage Fireplace, sleeps 6-8. On Big Spider Lake, Hayward, Wisconsin. For rent monthly, weekly, weekend. Call (507) 288-1600 or write 602 Colombia Court, Rochester, Minnesota 55904. 3-8/89

Mayo Clinic Department of Family Medicine is seeking a residency-trained, board-certified, experienced family physician for a full-time clinical position covering all aspects of family practice, including obstetrics. Medical school and family practice teaching opportunities are also included. Contact: Matthew J. Puffer, M.D., Department of Family Medicine, Mayo Clinic, Rochester, Minnesota 55905. An equal opportunity/affirmative action employer. 3-8/89

Pediatrician: Part-time position in Minneapolis available July of '89. Prorated salary, benefits, and call. Excellent opportunity for flexible lifestyle. Contact: Maureen Reed, M.D., Chief of Staff, ASPEN Medical Group, 1020 Bandana Boulevard West, Suite 100, St. Paul, Minnesota 55108; (612) 641-7178. *3-8/89

BC/BE Internist needed for full-time or part-time position in a progressive community clinic. Responsibilities include inpatient care. Competitive salary and benefits. Contact: Bruce Richardson, M.D., West Side Health Center (La Clinica), 153 Concord Street, St. Paul, Minnesota 55107; (612) 222-1816. 3-8/89

Family Physicians: Well-established suburban Minneapolis family practice group seeks associates PT/FT to staff day clinic. Excellent call schedule, salary, and fringe benefits. Also seeking locum tenens to staff PT/FT urgent care centers and/or day clinic. Contact: Administration, Family Physicians, P.A., (612) 435-4125 or send inquiries to PO Box 3046, Burnsville, Minnesota 55337. (*R)

Family Physician needed to join group of three full-time physicians in rapidly growing community health center. Must do obstetrics. Competitive salary and benefits. Contact: Craig Redfern, D.O., or Beverley Hawkins, Ph.D., Model Cities Health Center, 430 North Dale Street, St. Paul, Minnesota 55103; (612) 222-6029. (R)

Family Practitioner: Immediate need for family practitioner, board certified or eligible. We offer an outstanding guaranteed package with new offices. Financially strong, very progressive 50-bed JCAHO with 24-hour physician ER coverage. Located in the foothills of the Ozarks. New radiology and 12-bed ICU/CCU opening May 1, 1989. Excellent climate, very progressive city of 15,000—32,000 in the county. Area consists of 50 percent industry and 50 percent agriculture. Very steady economy, excellent schools, very low taxes, including low property taxes. For more information, please call or write: Nolan O. England, Administrator, Dexter Memorial Hospital, 1200 North One Mile Road, Dexter, Missouri 63841; (314) 624-5566. *2-7/89

Ob/Gyn, Internal Medicine, BE/CE position is available at the Fairmont Medical Clinic, P.A., in Fairmont, Minnesota. The clinic is a progressive 12-person multispecialty group in southern Minnesota. The clinic and adjoining hospital (74 beds) are currently under major expansion. Fairmont is a community of 12,000 (trade area of 70,000) built around a chain of five lakes. First-year salary, paid malpractice, and benefit package. Contact: Dennis Sternke, M.D., Fairmont Medical Clinic, P.A., PO Box 800, Fairmont, Minnesota 56031; (507) 238-4263. 3-8/89

Internist/Family Practice Minnesota: Family physicians seek internist and family physician. Excellent opportunity, compensation, and benefit package. Family-oriented community with outstanding quality of life, educational and recreational facilities, and easy access to metro area. Contact: Mary Jo Cordes, MDsearch, PO Box 16458, St. Paul, Minnesota 55116; or call collect (612) 454-7291. 1-7/89

Virginia, Emergency Medicine: Minnesota graduate seeking board-certified emergency or family practice physician to join five-member emergency group in the central Shenandoah Valley of Virginia. Extensive emergency experience desirable for a 29,000 patient/year emergency department. Salary in the $90,000 to 100,000+ range for 35-hour week. Beautiful location, mild climate, progressive hospital, and no HMO medicine in the area. Call: Richard Evans or Stan Heatwole at (703) 887-2160. *3-9/89

Director of Medical Education The Children's Hospital, St. Paul, Minnesota: 116-bed children's hospital with active teaching program for residents in pediatrics and family practice and for medical students. Private hospital associated with pediatric teaching program of University of Minnesota. Strong general pediatric and subspecialty medical staff. Large level III NICU. Tertiary center for pediatrics, including intensive care. Contact: F. Blanton Bessinger, Jr., M.D., Vice President, Medical Affairs, The Children's Hospital, Inc., 345 North Smith Avenue, St. Paul, Minnesota 55101; (612) 220-6116. 2-8/89

Staff Psychiatrist position available on a full-time basis at a state-operated facility for the mentally ill. This institution provides psychiatric inpatient services for a catchment area of 700,000, in southeastern Minnesota. The hospital is located in the rolling hills of the Minnesota River Valley, and the city of St. Peter is a very pretty college town of 10,000. This individual will function as the unit psychiatrist for approximately 30 patients and will provide service in the setting of a multidisciplinary treatment team. He or she will become part of the medical staff with 10 members, most of whom are on the clinical faculty at the University of Minnesota School of Medicine. Board certification in psychiatry preferred. Minnesota license required.

The pay scale for this position ranges up to $119,000 for the board-certified individual. There is a very generous fringe benefit package in addition to the pay scale, and overtime is done on a voluntary basis with appropriate compensation.

We would be very willing to discuss alternate modes of employment with the qualified applicant, including employment on a part-time basis with the remainder of the individual's time being devoted to work within the mental health center, private practice, or other professional activities.

Contact: Thomas Stapleton, M.D., St. Peter Regional Treatment Center, 100 Freeman Drive, St. Peter, Minnesota 56082; (507) 931-7102. 1-7/89

General/Family Practitioners needed in central Minnesota. Wide range of options in communities surrounding St. Cloud and Minneapolis/St. Paul. All positions involve call/coverage with other FPs, small amounts of minor obstetrics, and the opportunity to develop a very strong practice in a short time. Income guarantees in the $70,000 range plus paid malpractice, insurance benefits, expenses, relocation, vacation, and CME allowance. Each community has its own unique practice, and all have a very strong need for your service. Contact: Paul Clukies, Jackson & Coker, 4000 Perimeter Center Terrace, Suite 760, MM9, Atlanta, Georgia 30346; 1-800-544-1987 or 1-800-288-7030. *1-7/89

California— Outstanding practice opportunities for medical directors, primary care and specialist physicians too numerous to mention in disciplines of ob/gyn, allergy, family practice, pediatrics, pulmonary disease, invasive and non-invasive cardiology, otolaryngology, gastroenterology, neurology, orthopedic surgery, neurosurgery, and urology. As retained consultants to more than 25 hospitals, group practices, and HMOs in northern and southern California, we can discuss each practice in detail. Please call or send a CV for additional information. Complete confidentiality assured. Contact: Ken Baker at (415) 981-7424 (collect). Physician Search Group, 50 California Street, Suite 400, San Francisco, California 94111. 1-7/89

General Internist: Marshfield Clinic, a multispecialty group practice with over 300 physicians, is seeking BC/BE general internists to join expanding regional centers. Practice opportunities range in size from multispecialty groups of 11 to 25. Positions available in three locations: one in northwestern Wisconsin, 90 miles from Minneapolis; one in north-central Wisconin in close proximity to the Upper Peninsula of Michigan and Lake Superior, and one in central Wisconsin within 35 miles of Marshfield. Full-specialty consultation readily available. Positions offer strong economic stability combined with exceptional recreational, cultural, and educational opportunities. Starting salary up to $89,400 with salary in two years up to $113,100. Fringe-benefit package is outstanding. Send CV and references to: David L. Draves, Director, Regional Development, 1000 North Oak Avenue, Marshfield, Wisconsin 54449 or call collect (715) 387-5376. *1-7/89

Family Practice: Marshfield Clinic, a multispecialty group practice with over 300 physicians, is seeking BC/BE family practitioners to

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We're very flexible in the Army Reserve about time. We take into account your practice, your time and availability.

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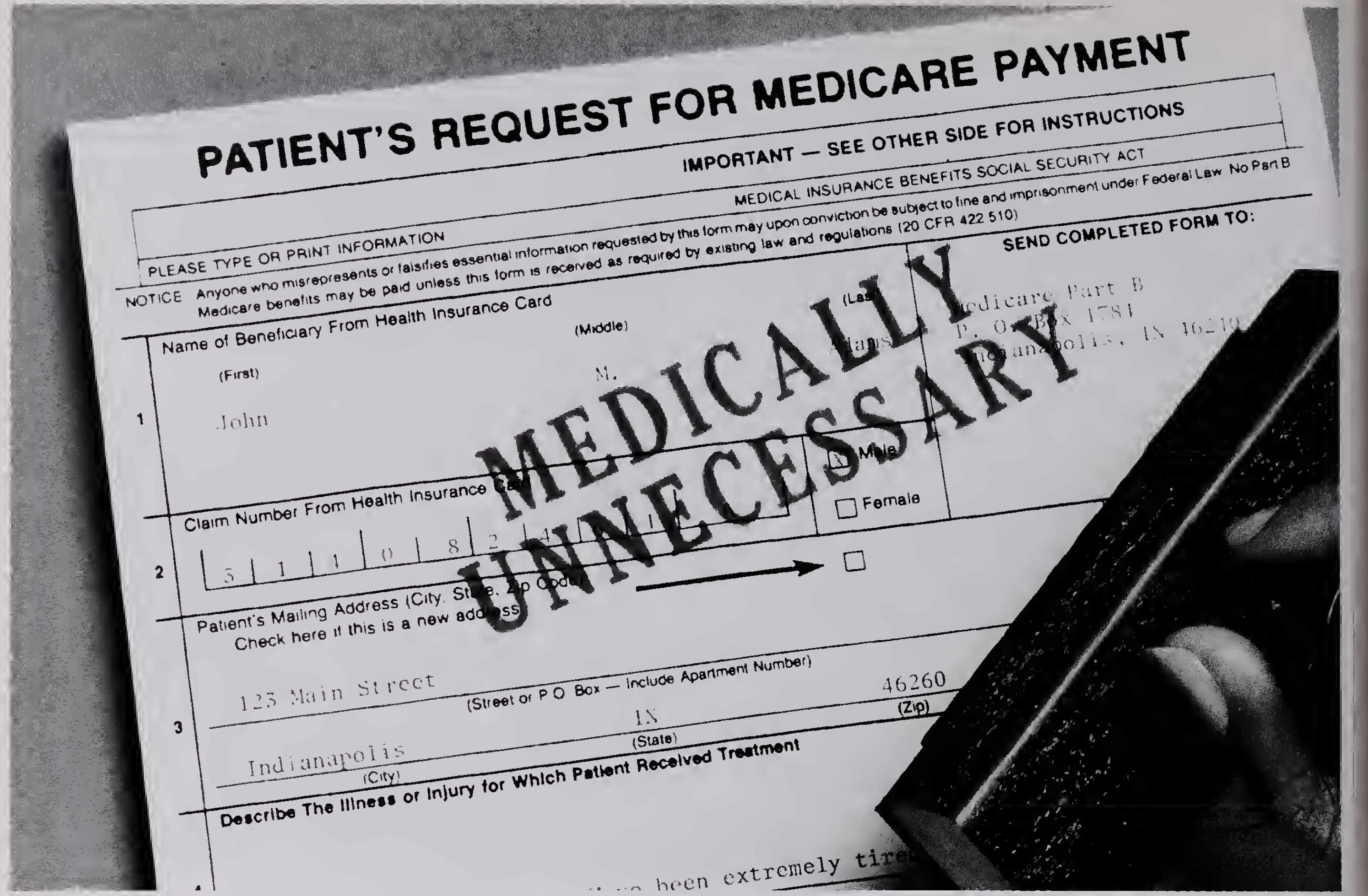PATIENT'S REQUEST FOR MEDICARE PAYMENT

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SEND COMPLETED FORM TO:

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2 Claim Number From Health Insurance Card 3 1 1 0 8 2 4 ☒ Male ☐ Female

3 Patient's Mailing Address (City, State, Zip Code) Check here if this is a new address ☐

123 Main Street (Street or P O Box — Include Apartment Number)

Indianapolis (City) IN (State) 46260 (Zip)

4 Describe The Illness or Injury for Which Patient Received Treatment

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MEDICALLY UNNECESSARY

DIAGNOSIS.

Just months ago, physicians' rights to due process were jeopardized when Medicare carriers issued thousands of refund notices for "medically unnecessary" services. Refund notices were being sent to patients and physicians without adequate claims investigation and without information to wage an appeal. Left unchecked, this process threatens to severely undermine the basic trust between physician and patient.

Things are different now...thanks to the AMA. Our committed work with the Health Care Financing Administration (HCFA) to solve this problem has paid off. Because of the AMA's determination to protect the rights of physicians and patients, HCFA has issued new instructions to Medicare carriers. Carriers are now required to contact physicians directly for additional information before any claim is denied or any patient notices are released.

But there's more work to be done. During the next few months, HCFA, working with the AMA, will develop an educational program for improving physician understanding of the whole process. We must continue to look out for your patients and for your rights, too. But we can't do it without your help.

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Red Wing is a mid-size community along the bluffs of the Mississippi River only 40 miles from Minneapolis/St. Paul area. Area highlights include an excellent school system, a growing cultural environment, water recreation, skiing, and an active business climate. Red Wing has all the benefits of a metro area in a serene setting.

For additional information, please call or send CV to Don Bruns, M.D., Hwy 61 West, Red Wing, MN 55066, (612) 388-3503.

Interstate
MEDICAL CENTER P.A.

Ramsey Clinic
Baldwin, Wisconsin

A branch of Ramsey Clinic of St. Paul, located in friendly Baldwin, Wisconsin on I-94 close to St. Paul, Minnesota (40 miles) has a need for two family practice physicians. You will join an established group in a new clinic building attached to an excellent hospital with three other family practitioners, an internist and a physician's assistant. Benefit from the support of a large multi-specialty group with a most liberal benefit program. I would like to tell you more about this attractive practice opportunity. Please contact Milt Cornwall, M.D. at (612) 221-1840 or (715) 386-2802.

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join expanding regional centers. Practice opportunities range in size from single-specialty groups of three to multispecialty groups of 25. Positions available in six locations: two in northwestern Wisconsin within 70 and 90 miles of Minneapolis; two in northcentral Wisconsin within 80 and 90 miles of Lake Superior; and two in central Wisconsin within 25 and 35 miles of Marshfield. Full specialty consultation readily available. Positions offer strong economic stability combined with exceptional recreational, cultural, and educational opportunities. Starting salary up to $89,400 with salary in two years up to $113,100. Fringe-benefit package is outstanding. Send CV and references to: David L. Draves, Director, Regional Development, 1000 North Oak Avenue, Marshfield, Wisconsin 54449 or call collect (715) 387-5376. *1-7/89

Orthopedic Surgeons—Wisconsin: Marshfield Clinic, a multispecialty group practice with over 300 physicians, is seeking BC/BE orthopedic surgeons to join expanding regional centers. Positions available in two locations: one in northwestern Wisconsin within 90 miles of Minneapolis and one, a group practice of 25 physicians, in north-central Wisconsin approximately 1 1/2 hours from Lake Superior. Communities offer exceptional recreational, cultural, and educational opportunities. Compensation package with starting salary up to $149,100 combined with outstanding fringe-benefit package totals in excess of $200,000. There is no buy-in or start-up expense. Send CV and references to: David L. Draves, Director, Regional Development, 1000 North Oak Avenue, Marshfield, Wisconsin 54449 or call collect (715) 387-5376. *1-7/89

Family Practice/Internal Medicine/OB/GYN: Attractive opportunities (many on lakes) for BC/BE physicians in Michigan, Wisconsin, and Indiana. Contact Bob Strzelczyk to discuss your practice requirements and these positions. Strelcheck & Associates, Inc., 12724 North Maplecrest Lane, Mequon, Wisconsin 53092; 1-800-243-4353; (414) 243-9500 WI (collect). *2-8/89

Occupational Health or Family Practitioner interested in working and developing an occupational health clinic with an emphasis on spinal disorders in the Twin Cities area. Please send CV to: Minnesota Medicine (835), 2221 University Avenue SE, Suite 400, Minneapolis, Minnesota 55414. 2-8/89

Staff Physician and Psychiatrist: Staff physician in our chemical dependency center. BC/BE in psychiatry, internal medicine, or family practice preferred and a BC/BE psychiatrist to work as a staff physician. Positions offer a competitive salary, basic 40-hour week with limited on-call responsibility, malpractice coverage, 30 days' paid vacation, and other excellent fringe benefits in a JCAHO-accredited, progressive 802-bed medical center with 72,000 outpatient visits per year, adequate staffing, including physician extenders, and research opportunities. The city of St. Cloud, Minnesota, and the surrounding area boasts of a high quality of family living for its residents who enjoy clean air, a wide variety of four-season outdoor recreational opportunities, excellent hunting and fishing in the "Land of 10,000 Lakes," and outstanding educational facilities, which include two universities and an excellent college. Located between the Twin Cities of Minneapolis/St. Paul and the northern lake country. Financial assistance to defer cost of relocation. Equal opportunity employer. Write or call: LaBelle Ruehle, Personnel Service, Veterans Administration Medical Center, 4801 8th Street North, St. Cloud, Minnesota 56303; (612) 255-6301. *2-8/89

Family Practice Opportunity: The University of Illinois College of Medicine at Rockford is developing a family practice group in a northern Illinois community. Major Midwestern cities and recreational areas within driving distance. University and local hospital will provide all facilities, staff, and business systems to support successful practice. Outstanding opportunity for professional fulfillment, community involvement, and personal recognition. Faculty appointment, exceptional university benefits, and salary guarantee. Inquiries/CVs to: Dr. L. P. Johnson, Department of Family and Community Medicine, University of Illinois College of Medicine at Rockford, 1601 Parkview Avenue, Rockford, Illinois 61107. The University of Illinois is an equal opportunity employer. *2-8/89

Shakopee, Minnesota—Emergency Medicine: Growing emergency department with patient volume of 8,000-plus seeking experienced emergency department physician to join medical staff. Shakopee is located directly southwest of Twin Cities. Guaranteed rate of reimbursement, occurrence malpractice insurance coverage, and allowance for CME, professional dues, and relocation expenses. For complete details, contact: Mary Dwyer, Spectrum Emergency Care, PO Box 27352, St. Louis, Missouri 63141; 1-800-325-3982, ext. 3031. 3-9/89

Practice Opportunities available for internal medicine, occupational health, ob/gyn, and family practice physicians to join a 20-physician multispecialty primary care clinic with multiple sites in northern suburbs of Twin Cities. Practice is predominately fee-for-service. Main clinic is located adjacent to Unity Hospital. Competitive starting salary with generous fringe-benefit package. For additional information, contact: Dr. Kevin Bailey at (612) 786-2700 or send CV to Jeannine Schlottman, Administrator, 7676 Madison Street NE, Fridley, Minnesota 55432. 3-9/89

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VASOTEC is available in 2.5-mg, 5-mg, 10-mg, and 20-mg tablet strengths.

Contraindications: VASOTEC® (Enalapril Maleate, MSD) is contraindicated in patients who are hypersensitive to this product and in patients with a history of angioedema related to previous treatment with an ACE inhibitor.

Warnings: *Angioedema:* Angioedema of the face, extremities, lips, tongue, glottis, and/or larynx has been reported in patients treated with ACE inhibitors, including VASOTEC. In such cases, VASOTEC should be promptly discontinued and the patient carefully observed until the swelling disappears. In instances where swelling has been confined to the face and lips, the condition has generally resolved without treatment, although antihistamines have been useful in relieving symptoms. Angioedema associated with laryngeal edema may be fatal. **Where there is involvement of the tongue, glottis, or larynx likely to cause airway obstruction, appropriate therapy, e.g., subcutaneous epinephrine solution 1:1000 (0.3 mL to 0.5 mL), should be promptly administered.** (See ADVERSE REACTIONS.)

Hypotension: Excessive hypotension is rare in uncomplicated hypertensive patients treated with VASOTEC alone. Heart failure patients given VASOTEC commonly have some reduction in blood pressure, especially with the first dose, but discontinuation of therapy for continuing symptomatic hypotension usually is not necessary when dosing instructions are followed; caution should be observed when initiating therapy (See DOSAGE AND ADMINISTRATION.) Patients at risk for excessive hypotension, sometimes associated with oliguria and/or progressive azotemia and rarely with acute renal failure and/or death, include those with the following conditions or characteristics: heart failure, hyponatremia, high-dose diuretic therapy, recent intensive diuresis or increase in diuretic dose, renal dialysis, or severe volume and/or salt depletion of any etiology. It may be advisable to eliminate the diuretic (except in heart failure patients), reduce the diuretic dose, or increase salt intake cautiously before initiating therapy with VASOTEC in patients at risk for excessive hypotension who are able to tolerate such adjustments. (See PRECAUTIONS, *Drug Interactions* and ADVERSE REACTIONS.) In patients at risk for excessive hypotension, therapy should be started under very close medical supervision and such patients should be followed closely for the first two weeks of treatment and whenever the dose of enalapril and/or diuretic is increased. Similar considerations may apply to patients with ischemic heart disease or cardiovascular disease in whom an excessive fall in blood pressure could result in a myocardial infarction or cerebrovascular accident.

If excessive hypotension occurs, the patient should be placed in supine position and, if necessary, receive an intravenous infusion of normal saline. A transient hypotensive response is not a contraindication to further doses of VASOTEC, which usually can be given without difficulty once the blood pressure has stabilized. If symptomatic hypotension develops, a dose reduction or discontinuation of VASOTEC or concomitant diuretic may be necessary.

Neutropenia/Agranulocytosis: Another ACE inhibitor, captopril, has been shown to cause agranulocytosis and bone marrow depression, rarely in uncomplicated patients but more frequently in patients with renal impairment, especially if they also have a collagen vascular disease. Available data from clinical trials of enalapril are insufficient to show that enalapril does not cause agranulocytosis at similar rates. Foreign marketing experience has revealed several cases of neutropenia or agranulocytosis in which a causal relationship to enalapril cannot be excluded. Periodic monitoring of white blood cell counts in patients with collagen vascular disease and renal disease should be considered

Precautions: *General: Impaired Renal Function:* As a consequence of inhibiting the renin-angiotensin-aldosterone system, changes in renal function may be anticipated in susceptible individuals. In patients with severe heart failure whose renal function may depend on the activity of the renin-angiotensin-aldosterone system, treatment with ACE inhibitors, including VASOTEC, may be associated with oliguria and/or progressive azotemia and rarely with acute renal failure and/or death.

In clinical studies in hypertensive patients with unilateral or bilateral renal artery stenosis, increases in blood urea nitrogen and serum creatinine were observed in 20% of patients. These increases were almost always reversible upon discontinuation of enalapril and/or diuretic therapy. In such patients, renal function should be monitored during the first few weeks of therapy.

Some patients with hypertension or heart failure with no apparent preexisting renal vascular disease have developed increases in blood urea and serum creatinine, usually minor and transient, especially when VASOTEC has been given concomitantly with a diuretic. This is more likely to occur in patients with preexisting renal impairment. Dosage reduction and/or discontinuation of the diuretic and/or VASOTEC may be required

Evaluation of patients with hypertension or heart failure should always include assessment of renal function. (See DOSAGE AND ADMINISTRATION.)

Hyperkalemia: Elevated serum potassium (> 5.7 mEq/L) was observed in approximately 1% of hypertensive patients in clinical trials. In most cases these were isolated values which resolved despite continued therapy. Hyperkalemia was a cause of discontinuation of therapy in 0.28% of hypertensive patients. In clinical trials in heart failure, hyperkalemia was observed in 3.8% of patients, but was not a cause for discontinuation.

Risk factors for the development of hyperkalemia include renal insufficiency, diabetes mellitus, and the concomitant use of potassium-sparing diuretics, potassium supplements, and/or potassium-containing salt substitutes, which should be used cautiously, if at all, with VASOTEC. (See *Drug Interactions*.)

Surgery/Anesthesia: In patients undergoing major surgery or during anesthesia with agents that produce hypotension, enalapril may block angiotensin II formation secondary to compensatory renin release. If hypotension occurs and is considered to be due to this mechanism, it can be corrected by volume expansion.

Information for Patients:

Angioedema: Angioedema, including laryngeal edema, may occur especially following the first dose of enalapril. Patients should be so advised and told to report immediately any signs or symptoms suggesting angioedema (swelling of face, extremities, eyes, lips, tongue, difficulty in swallowing or breathing) and to take no more drug until they have consulted with the prescribing physician.

Hypotension: Patients should be cautioned to report lightheadedness especially during the first few days of therapy. If actual syncope occurs, the patients should be told to discontinue the drug until they have consulted with the prescribing physician.

All patients should be cautioned that excessive perspiration and dehydration may lead to an excessive fall in blood pressure because of reduction in fluid volume. Other causes of volume depletion such as vomiting or diarrhea may also lead to a fall in blood pressure, patients should be advised to consult with the physician

Hyperkalemia: Patients should be told not to use salt substitutes containing potassium without consulting their physician.

Neutropenia: Patients should be told to report promptly any indication of infection (e.g., sore throat, fever) which may be a sign of neutropenia

NOTE: As with many other drugs, certain advice to patients being treated with enalapril is warranted. This information is intended to aid in the safe and effective use of this medication. It is not a disclosure of all possible adverse or intended effects

Drug Interactions:

Hypotension: Patients on Diuretic Therapy. Patients on diuretics and especially those in whom diuretic therapy was recently instituted may occasionally experience an excessive reduction of blood pressure after initiation of therapy with enalapril. The possibility of hypotensive effects with enalapril can be minimized by either discontinuing the diuretic or increasing the salt intake prior to initiation of treatment with enalapril. If it is necessary to continue the diuretic, provide close medical supervision after the initial dose for at least two hours and until blood pressure has stabilized for at least an additional hour. (See WARNINGS and DOSAGE AND ADMINISTRATION.)

Agents Causing Renin Release: The antihypertensive effect of VASOTEC is augmented by antihypertensive agents that cause renin release (e.g., diuretics).

Other Cardiovascular Agents: VASOTEC has been used concomitantly with beta-adrenergic-blocking agents, methyldopa, nitrates, calcium-blocking agents, hydralazine, prazosin, and digoxin without evidence of clinically significant adverse interactions.

Agents Increasing Serum Potassium: VASOTEC attenuates potassium loss caused by thiazide-type diuretics. Potassium-sparing diuretics (e.g., spironolactone, triamterene, or amiloride), potassium supplements, or potassium-containing salt substitutes may lead to significant increases in serum potassium. Therefore, if concomitant use of these agents is indicated because of demonstrated hypokalemia, they should be used with caution and with frequent monitoring of serum potassium. Potassium-sparing agents should generally not be used in patients with heart failure receiving VASOTEC.

Lithium. A few cases of lithium toxicity have been reported in patients receiving concomitant VASOTEC and lithium and were reversible upon discontinuation of both drugs. Although a causal relationship has not been established, it is recommended that caution be exercised when lithium is used concomitantly with VASOTEC and serum lithium levels should be monitored frequently.

Pregnancy—Category C: There was no fetotoxicity or teratogenicity in rats treated with up to 200 mg/kg/day of enalapril (333 times the maximum human dose). Fetotoxicity, expressed as a decrease in average fetal weight, occurred in rats given 1200 mg/kg/day of enalapril but did not occur when these animals were supplemented with saline. Enalapril was not teratogenic in rabbits. However, maternal and fetal toxicity occurred in some rabbits at doses of 1 mg/kg/day or more. Saline supplementation prevented the maternal and fetal toxicity seen at doses of 3 and 10 mg/kg/day, but not at 30 mg/kg/day (50 times the maximum human dose).

Radioactivity was found to cross the placenta following administration of labeled enalapril to pregnant hamsters.

There are no adequate and well-controlled studies of enalapril in pregnant women. However, data are available that show enalapril crosses the human placenta. Because the risk of fetal toxicity with the use of ACE inhibitors has not been clearly defined, VASOTEC® (Enalapril Maleate, MSD) should be used during pregnancy only if the potential benefit justifies the potential risk to the fetus.

Postmarketing experience with all ACE inhibitors thus far suggests the following with regard to pregnancy outcome. Inadvertent exposure limited to the first trimester of pregnancy has not been reported to affect fetal outcome adversely. Fetal exposure during the second and third trimesters of pregnancy has been associated with fetal and neonatal morbidity and mortality

When ACE inhibitors are used during the later stages of pregnancy, there have been reports of hypotension and decreased renal perfusion in the newborn. Oligohydramnios in the mother has also been reported, presumably representing decreased renal function in the fetus. Infants exposed *in utero* to ACE inhibitors should be closely observed for hypotension, oliguria, and hyperkalemia. If oliguria occurs, attention should be directed toward support of blood pressure and renal perfusion with the administration of fluids and pressors as appropriate. Problems associated with prematurity such as patent ductus arteriosus have occurred in association with maternal use of ACE inhibitors, but it is not clear whether they are related to ACE inhibition, maternal hypertension, or the underlying prematurity

Nursing Mothers: Milk in lactating rats contains radioactivity following administration of ^{14}C enalapril maleate. It is not known whether this drug is secreted in human milk. Because many drugs are secreted in human milk, caution should be exercised when VASOTEC is given to a nursing mother.

Pediatric Use: Safety and effectiveness in children have not been established.

Adverse Reactions: VASOTEC has been evaluated for safety in more than 10,000 patients, including over 1000 patients treated for one year or more. VASOTEC has been found to be generally well tolerated in controlled clinical trials involving 2987 patients.

HYPERTENSION: The most frequent clinical adverse experiences in controlled trials were: headache (5.2%), dizziness (4.3%), and fatigue (3%).

Other adverse experiences occurring in greater than 1% of patients treated with VASOTEC in controlled clinical trials were: diarrhea (1.4%), nausea (1.4%), rash (1.4%), cough (1.3%), orthostatic effects (1.2%), and asthenia (1.1%).

HEART FAILURE: The most frequent clinical adverse experiences in both controlled and uncontrolled trials were: dizziness (7.9%), hypotension (6.7%), orthostatic effects (2.2%), syncope (2.2%), cough (2.2%), chest pain (2.1%), and diarrhea (2.1%).

Other adverse experiences occurring in greater than 1% of patients treated with VASOTEC in both controlled and uncontrolled clinical trials were: fatigue (1.8%), headache (1.8%), abdominal pain (1.6%), asthenia (1.6%), orthostatic hypotension (1.6%), vertigo (1.6%), angina pectoris (1.5%), nausea (1.3%), vomiting (1.3%), bronchitis (1.3%), dyspnea (1.3%), urinary tract infection (1.3%), rash (1.3%), and myocardial infarction (1.2%).

Other serious clinical adverse experiences occurring since the drug was marketed or adverse experiences occurring in 0.5% to 1% of patients with hypertension or heart failure in clinical trials in order of decreasing severity within each category:

Cardiovascular: Cardiac arrest, myocardial infarction or cerebrovascular accident, possibly secondary to excessive hypotension in high-risk patients (see WARNINGS, *Hypotension*); cardiac arrest; pulmonary embolism and infarction; rhythm disturbances, atrial fibrillation, palpitation.

Digestive: Ileus, pancreatitis, hepatitis or cholestatic jaundice, melena, anorexia, dyspepsia, constipation, glossitis.

Nervous/Psychiatric: Depression, confusion, ataxia, somnolence, insomnia, nervousness, paresthesia

Urogenital: Renal failure, oliguria, renal dysfunction (see PRECAUTIONS and DOSAGE AND ADMINISTRATION).

Respiratory: Bronchospasm, rhinorrhea, asthma, upper respiratory infection.

Skin: Herpes zoster, pruritus, alopecia, flushing, photosensitivity.

Other: Vasculitis, muscle cramps, hyperhidrosis, impotence, blurred vision, taste alteration, tinnitus.

A symptom complex has been reported which may include fever, myalgia, and arthralgia; an elevated erythrocyte sedimentation rate may be present. Rash or other dermatologic manifestations may occur. These symptoms have disappeared after discontinuation of therapy.

Angioedema: Angioedema has been reported in patients receiving VASOTEC (0.2%). Angioedema associated with laryngeal edema may be fatal. If angioedema of the face, extremities, lips, tongue, glottis, and/or larynx occurs, treatment with VASOTEC should be discontinued and appropriate therapy instituted immediately. (See WARNINGS.)

Hypotension: In the hypertensive patients, hypotension occurred in 0.9% and syncope occurred in 0.5% of patients following the initial dose or during extended therapy. Hypotension or syncope was a cause for discontinuation of therapy in 0.1% of hypertensive patients. In heart failure patients, hypotension occurred in 6.7% and syncope occurred in 2.2% of patients. Hypotension or syncope was a cause for discontinuation of therapy in 1.9% of patients with heart failure. (See WARNINGS.)

Clinical Laboratory Test Findings:

Serum Electrolytes: Hyperkalemia (see PRECAUTIONS), hyponatremia

Creatinine, Blood Urea Nitrogen: In controlled clinical trials, minor increases in blood urea nitrogen and serum creatinine, reversible upon discontinuation of therapy, were observed in about 0.2% of patients with essential hypertension treated with VASOTEC alone. Increases are more likely to occur in patients receiving concomitant diuretics or in patients with renal artery stenosis. (See PRECAUTIONS.) In patients with heart failure who were also receiving diuretics with or without digitalis, increases in blood urea nitrogen or serum creatinine, usually reversible upon discontinuation of VASOTEC and/or other concomitant diuretic therapy, were observed in about 11% of patients. Increases in blood urea nitrogen or creatinine were a cause for discontinuation in 1.2% of patients.

Hemoglobin and Hematocrit. Small decreases in hemoglobin and hematocrit (mean decreases of approximately 0.3 g % and 1.0 vol %, respectively) occur frequently in either hypertension or heart failure patients treated with VASOTEC but are rarely of clinical importance unless another cause of anemia coexists. In clinical trials, less than 0.1% of patients discontinued therapy due to anemia

Other (Causal Relationship Unknown): In marketing experience, rare cases of neutropenia, thrombocytopenia, and bone marrow depression have been reported.

Liver Function Tests: Elevations of liver enzymes and/or serum bilirubin have occurred.

Dosage and Administration: *Hypertension:* In patients who are currently being treated with a diuretic, symptomatic hypotension occasionally may occur following the initial dose of VASOTEC. The diuretic should, if possible, be discontinued for two to three days before beginning therapy with VASOTEC to reduce the likelihood of hypotension. (See WARNINGS.) If the patient's blood pressure is not controlled with VASOTEC alone, diuretic therapy may be resumed

If the diuretic cannot be discontinued, an initial dose of 2.5 mg should be used under medical supervision for at least two hours and until blood pressure has stabilized for at least an additional hour. (See WARNINGS and PRECAUTIONS, *Drug Interactions*.)

The recommended initial dose in patients not on diuretics is 5 mg once a day. Dosage should be adjusted according to blood pressure response. The usual dosage range is 10 to 40 mg per day administered in a single dose or in two divided doses. In some patients treated once daily, the antihypertensive effect may diminish toward the end of the dosing interval. In such patients, an increase in dosage or twice-daily administration should be considered. If blood pressure is not controlled with VASOTEC alone, a diuretic may be added.

Concomitant administration of VASOTEC with potassium supplements, potassium salt substitutes, or potassium-sparing diuretics may lead to increases of serum potassium (see PRECAUTIONS).

Dosage Adjustment in Hypertensive Patients with Renal Impairment: The usual dose of enalapril is recommended for patients with a creatinine clearance >30 mL/min (serum creatinine of up to approximately 3 mg/dL). For patients with creatinine clearance ≤30 mL/min (serum creatinine ≥3 mg/dL), the first dose is 2.5 mg once daily. The dosage may be titrated upward until blood pressure is controlled or to a maximum of 40 mg daily.

Heart Failure. VASOTEC is indicated as adjunctive therapy with diuretics and digitalis. The recommended starting dose is 2.5 mg once or twice daily. After the initial dose of VASOTEC, the patient should be observed under medical supervision for at least two hours and until blood pressure has stabilized for at least an additional hour. (See WARNINGS and PRECAUTIONS, *Drug Interactions*.) If possible, the dose of the diuretic should be reduced, which may diminish the likelihood of hypotension. The appearance of hypotension after the initial dose of VASOTEC does not preclude subsequent careful dose titration with the drug, following effective management of the hypotension. The usual therapeutic dosing range for the treatment of heart failure is 5 to 20 mg daily given in two divided doses. The maximum daily dose is 40 mg. Once-daily dosing has been effective in a controlled study, but nearly all patients in this study were given 40 mg, the maximum recommended daily dose, and there has been much more experience with twice-daily dosing. In addition, in a placebo-controlled study which demonstrated reduced mortality in patients with severe heart failure (NYHA Class IV), patients were treated with 2.5 to 40 mg per day of VASOTEC, almost always administered in two divided doses. (See CLINICAL PHARMACOLOGY, *Pharmacodynamics and Clinical Effects*.) Dosage may be adjusted depending upon clinical or hemodynamic response. (See WARNINGS.)

Dosage Adjustment in Heart Failure Patients with Renal Impairment or Hyponatremia: In heart failure patients with hyponatremia (serum sodium <130 mEq/L) or with serum creatinine >1.6 mg/dL, therapy should be initiated at 2.5 mg daily under close medical supervision. (See DOSAGE AND ADMINISTRATION, *Heart Failure*, WARNINGS, and PRECAUTIONS, *Drug Interactions*.) The dose may be increased to 2.5 mg b.i.d., then 5 mg b.i.d. and higher as needed, usually at intervals of four days or more, if at the time of dosage adjustment there is not excessive hypotension or significant deterioration of renal function. The maximum daily dose is 40 mg

For more detailed information, consult your MSD Representative or see Prescribing Information. Merck Sharp & Dohme, Division of Merck & Co., Inc., West Point, PA 19486. J6VS18R2(817)

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A JOURNAL OF CLINICAL AND HEALTH AFFAIRS

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Brief Summary

Consult the package literature for complete information.

Indications and Usage: Axid is indicated for up to eight weeks for the treatment of active duodenal ulcer. In most patients, the ulcer will heal within four weeks.

Axid is indicated for maintenance therapy for duodenal ulcer patients at a reduced dosage of 150 mg h.s. after healing of an active duodenal ulcer. The consequences of continuous therapy with Axid for longer than one year are not known.

Contraindication: Axid is contraindicated in patients with known hypersensitivity to the drug and should be used with caution in patients with hypersensitivity to other H_2-receptor antagonists

Precautions: *General* – 1. Symptomatic response to nizatidine therapy does not preclude the presence of gastric malignancy.

2. Because nizatidine is excreted primarily by the kidney, dosage should be reduced in patients with moderate to severe renal insufficiency.

3. Pharmacokinetic studies in patients with hepatorenal syndrome have not been done. Part of the dose of nizatidine is metabolized in the liver. In patients with normal renal function and uncomplicated hepatic dysfunction, the disposition of nizatidine is similar to that in normal subjects.

Laboratory Tests – False-positive tests for urobilinogen with Multistix® may occur during therapy with nizatidine.

Drug Interactions – No interactions have been observed between Axid and theophylline, chlordiazepoxide, lorazepam, lidocaine, phenytoin, and warfarin. Axid does not inhibit the cytochrome P-450-linked drug-metabolizing enzyme system; therefore, drug interactions mediated by inhibition of hepatic metabolism are not expected to occur. In patients given very high doses (3,900 mg) of aspirin daily, increases in serum salicylate levels were seen when nizatidine, 150 mg b.i.d., was administered concurrently.

Carcinogenesis, Mutagenesis, Impairment of Fertility – A two-year oral carcinogenicity study in rats with doses as high as 500 mg/kg/day (about 80 times the recommended daily therapeutic dose) showed no evidence of a carcinogenic effect. There was a dose-related increase in the density of enterochromaffin-like (ECL) cells in the gastric oxyntic mucosa. In a two-year study in mice, there was no evidence of a carcinogenic effect in male mice; although hyperplastic nodules of the liver were increased in the high-dose males as compared with placebo. Female mice given the high dose of Axid (2,000 mg/kg/day, about 330 times the human dose) showed marginally statistically significant increases in hepatic carcinoma and hepatic nodular hyperplasia with no numerical increase seen in any of the other dose groups. The rate of hepatic carcinoma in the high-dose animals was within the historical control limits seen for the strain of mice used. The female mice were given a dose larger than the maximum tolerated dose, as indicated by excessive (30%) weight decrement as compared with concurrent controls and evidence of mild liver injury (transaminase elevations). The occurrence of a marginal finding at high dose only in animals given an excessive and somewhat hepatotoxic dose, with no evidence of a carcinogenic effect in rats, male mice, and female mice (given up to 360 mg/kg/day, about 60 times the human dose), and a negative mutagenicity battery are not considered evidence of a carcinogenic potential for Axid.

Axid was not mutagenic in a battery of tests performed to evaluate its potential genetic toxicity, including bacterial mutation tests, unscheduled DNA synthesis, sister chromatid exchange, mouse lymphoma assay, chromosome aberration tests, and a micronucleus test.

In a two-generation, perinatal and postnatal fertility study in rats, doses of nizatidine up to 650 mg/kg/day produced no adverse effects on the reproductive performance of parental animals or their progeny.

Pregnancy – Teratogenic Effects – Pregnancy Category C – Oral reproduction studies in rats at doses up to 300 times the human dose and in Dutch Belted rabbits at doses up to 55 times the human dose revealed no evidence of impaired fertility or teratogenic effect; but, at a dose equivalent to 300 times the human dose, treated rabbits had abortions, decreased number of live fetuses, and depressed fetal weights. On intravenous administration to pregnant New Zealand White rabbits, nizatidine at 20 mg/kg produced cardiac enlargement, coarctation of the aortic arch, and cutaneous edema in one fetus and at 50 mg/kg it produced ventricular anomaly, distended abdomen, spina bifida, hydrocephaly, and enlarged heart in one fetus. There are, however, no adequate and well-controlled studies in pregnant women. It is also not known whether nizatidine can cause fetal harm when administered to a pregnant woman or can affect reproduction capacity. Nizatidine should be used during pregnancy only if the potential benefit justifies the potential risk to the fetus.

Nursing Mothers – Studies conducted in lactating women have shown that <0.1% of the administered oral dose of nizatidine is secreted in human milk in proportion to plasma concentrations. Caution should be exercised when administering nizatidine to a nursing mother.

Pediatric Use – Safety and effectiveness in children have not been established.

Use in Elderly Patients – Ulcer healing rates in elderly patients are similar to those in younger age groups. The incidence rates of adverse events and laboratory test abnormalities are also similar to those seen in other age groups. Age alone may not be an important factor in the disposition of nizatidine. Elderly patients may have reduced renal function.

Adverse Reactions: Clinical trials of nizatidine included almost 5,000 patients given nizatidine in studies of varying durations. Domestic placebo-controlled trials included over 1,900 patients given nizatidine and over 1,300 given placebo. Among reported adverse events in the domestic placebo-controlled trials, sweating (1% vs 0.2%), urticaria (0.5% vs < 0.01%), and somnolence (2.4% vs 1.3%) were significantly more common in the nizatidine group. A variety of less common events was also reported, it was not possible to determine whether these were caused by nizatidine.

Hepatic – Hepatocellular injury, evidenced by elevated liver enzyme tests (SGOT [AST], SGPT [ALT], or alkaline phosphatase), occurred in some patients and was possibly or probably related to nizatidine. In some cases, there was marked elevation of SGOT, SGPT enzymes (greater than 500 IU/L) and, in a single instance, SGPT was greater than 2,000 IU/L. The overall rate of occurrences of elevated liver enzymes and elevations to three times the upper limit of normal, however, did not significantly differ from the rate of liver enzyme abnormalities in placebo-treated patients. All abnormalities were reversible after discontinuation of Axid.

Cardiovascular – In clinical pharmacology studies, short episodes of asymptomatic ventricular tachycardia occurred in two individuals administered Axid and in three untreated subjects.

CNS – Rare cases of reversible mental confusion have been reported.

Endocrine – Clinical pharmacology studies and controlled clinical trials showed no evidence of antiandrogenic activity due to Axid. Impotence and decreased libido were reported with equal frequency by patients who received Axid and by those given placebo. Rare reports of gynecomastia occurred.

Hematologic – Fatal thrombocytopenia was reported in a patient who was treated with Axid and another H_2-receptor antagonist. On previous occasions, this patient had experienced thrombocytopenia while taking other drugs. Rare cases of thrombocytopenic purpura have been reported.

Integumental – Sweating and urticaria were reported significantly more frequently in nizatidine- than in placebo-treated patients. Rash and exfoliative dermatitis were also reported.

Hypersensitivity – As with other H_2-receptor antagonists, rare cases of anaphylaxis following administration of nizatidine have been reported. Because cross-sensitivity in this class of compounds has been observed, H_2-receptor antagonists should not be administered to individuals with a history of previous hypersensitivity to these agents. Rare episodes of hypersensitivity reactions (eg, bronchospasm, laryngeal edema, rash, and eosinophilia) have been reported.

Other – Hyperuricemia unassociated with gout or nephrolithiasis was reported. Eosinophilia, fever, and nausea related to nizatidine administration have been reported.

Overdosage: Overdoses of Axid have been reported rarely. The following is provided to serve as a guide should such an overdose be encountered.

Signs and Symptoms – There is little clinical experience with overdosage of Axid in humans. Test animals that received large doses of nizatidine have exhibited cholinergic-type effects, including lacrimation, salivation, emesis, miosis, and diarrhea. Single oral doses of 800 mg/kg in dogs and of 1,200 mg/kg in monkeys were not lethal. Intravenous median lethal doses in the rat and mouse were 301 mg/kg and 232 mg/kg respectively.

Treatment – To obtain up-to-date information about the treatment of overdose, a good resource is your certified regional Poison Control Center. Telephone numbers of certified poison control centers are listed in the *Physicians' Desk Reference (PDR)*. In managing overdosage, consider the possibility of multiple drug overdoses, interaction among drugs, and unusual drug kinetics in your patient.

If overdosage occurs, use of activated charcoal, emesis, or lavage should be considered along with clinical monitoring and supportive therapy. Renal dialysis for four to six hours increased plasma clearance.

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Additional information available to the profession on request.

1. Data on file, Lilly Research Laboratories.

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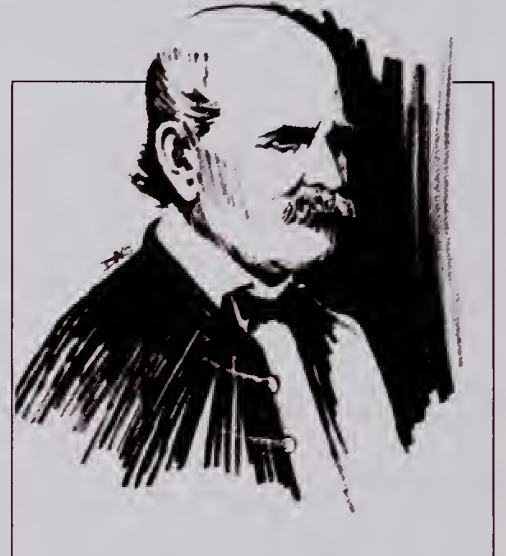
MINNESOTA MEDICINE
A Fragile Future for Urban Hospitals?

Cover Design

TODAY'S HOSPITALS are colored by a world of increasing competition in medicine, changes in reimbursement, new technology, and the need to consolidate and reorganize. This month's interviews and feature story tell what some urban hospitals are doing to survive in such a world—and what they may need to do to thrive in the future.

Cover design by Gail Swanlund of St. Paul.

POOR MARKETING DROVE SEMMELWEIS INSANE.



Ignaz Phillip Semmelweis (1818-1865) discovered that puerperal infection was reduced when surgeons disinfected their hands.

Poor marketing communications skills have always been detrimental to physicians. Take the case of the great Austrian physician Ignaz Phillip Semmelweis (1818 to 1865). He suffered more than most.

Ironically, the medical community washed its hands of Semmelweis, the physician who instructed his colleagues that disinfecting their hands with calcium chloride solution before surgery saved lives.

His findings, which he presented in an unacceptable fashion, were met with skepticism and rejection by the medical community. Semmelweis's sensitive nature crumbled under the ridicule and he eventually lost his mind.

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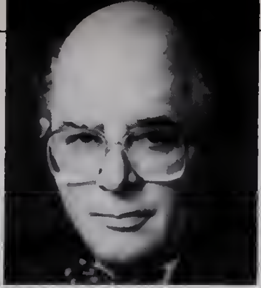


RICHARD L. REECE, M.D.

EDITOR'S NOTEBOOK

Paradoxes in a World Turned Upside Down

For many physicians, the world has been turned upside-down.

► You used to hospitalize patients to evaluate them. After all, that's what insurance paid for. Now you have to ask permission to send patients—even sick ones—to hospitals.

► You used to operate on patients inside hospitals. Now you must do 30 to 50 percent of procedures in an outpatient setting.

► You used to have the authority to make your decision, such as whether to operate. Now you must debate the indications with a clerk or a nurse or a utilization reviewer, or see if you can outwit an appropriateness review computer program.

► You used to be trusted by society. Now payers of every stripe—in government, in corporations, in health plans—accuse you of "unnecessary" or "inappropriate" behavior, of unethical self-referral, or of fraud and abuse.

► You used to be considered a quality physician if you had an M.D. Now your every step is monitored and judged to see if it measures up to quality standards.

► You used to charge what you considered to be a reasonable and customary fee. Now any fee you charge is discounted, delayed, or denied, and the government has decided it will dictate your fee, because only it knows the "resources" that went into the service you rendered.

► You used to have only one career. You started your professional life by building a practice, and you stayed there until you retired or died. Now you may have two or three careers, and you may choose to become what you formerly looked down upon—an administrator.

► You used to be assured of success if you practiced medicine. Now you may fail. So may your hospital.

► You used to dread anything that smacked of commercialism. Now to survive you must strike deals, market your practice, and perhaps even advertise.

► You used to dislike anything that had to do with organizations—going to meetings, writing business plans, thinking through your goals and objectives, dealing with managers. Now, in one way or another, you're part of an organization, and you depend on it for your very existence.

► You used to be your own person, making crisp yes or no decisions and going home with a sense of concrete accomplishments. Now, to get anything done within a hospital, you may have to push multiple decision levers and even lower yourself to organizational politicking.

Such are the personal changes brought on by a world turned upside-down by the drive to contain costs and assure quality. And these changes aren't restricted to practicing physicians. The changes affect even the largest and most stable organizations.

Talk to Robert Waller, M.D., the physician-head of the Mayo Foundation, as I did in an interview in this issue, and he will tell you these are times that require profound changes in the way Mayo does business. Ask Stan Nelson, formerly the CEO of the Henry Ford Health Care Corporation, close in size to Mayo, and he'll tell you size is no protection against change.

How do you deal with the demands for change in a turbulent environment? No one knows. But two paradoxes exist for sure:

1) The more the competition heats up, the more cooperation you need. This includes cooperation with other doctors and cooperation with hospitals. Heroic self-achievement seldom works in a mature managed care environment. This is hard for physicians to recognize, because much of their previous success is due to solo performances in undergraduate school, medical school, and postgraduate training.

2) The more physicians compete with hospitals for outpatient business, the greater the need becomes for formal collaboration between physicians and hospitals.

The day is fast coming, I believe, when PHOs (physician-hospital organizations) with shared control of the decision making will be the order of the day. But that is another subject for another day.

Today, all I ask is for you to read the interviews and feature story on the following pages to gain a sense of life within organizations for physicians. As you read, keep in mind that physician-dominated organizations—the super clinics, certain large HMOs, the tertiary care hospitals, many medical school departments, and large single-specialty groups—are growing in market share. Physicians, properly organized, still remain at the core of power within the health system. ■

The Mayo Clinic: Where the System is King

What is it that is so distinguished and distinguishing about the Mayo Clinic? I suppose everybody has a different answer. For me, the answer is this: At Mayo, the system is king. By the "system," I mean the collective mindset and behavior pattern that says everybody is working together and pooling talents for the common good of the institution and the patient.

The system demands countless committees, collective consensus, ceaseless interaction, careful planning, and constant attention to detail. It demands pre-selected and self-selected physicians who understand and accept the "Mayo way." These physicians must be able and willing to submerge their egos and individualism, think through the impact on the system of every action they take, and see the institution as an integrated whole rather than the sum of its parts.

Robert Waller, M.D., president and chief executive officer of the Mayo Foundation, is such a physician. Like most Mayo leaders, he has spent most of his professional life at Mayo. Now 52 years old, he came to Mayo in 1963 for his residency in ophthalmology. After completing his residency, he stayed at Mayo and has risen steadily up through the professional and administrative ranks to his present position.

Dr. Waller impressed me as courtly, controlled, in command, and patient. He also struck me as being at ease with Mayo's bold moves of late. These moves include expansions to Scottsdale and Jacksonville, a major reorganization of the entire Mayo system, installation of an expensive telecommunications system to link the three Mayo sites, major construction of new buildings in Rochester, and a structural and functional reconfiguration of Saint Marys and Rochester Methodist hospitals. These are extraordinarily ambitious things to do, especially for a supposedly staid and conservative institution like Mayo, and especially now with declining reimbursement.

But Dr. Waller seems to take it all in stride. After all, the force is with him. He is part of the system, and the system is behind him.

REECE: *Dr. Waller, you've been president and CEO of Mayo Foundation since January 1988. You're in your new position at a time of extremely rapid change. Could you list the major agendas for change?*

WALLER: Perhaps the major agenda for change relates to the challenge of conducting our programs in practice, education, and research in the new world of restricted revenues without compromising the quality of these efforts. Thus, we're very concerned about containing our costs as an institution. We have always tried to be an efficient organization. But, like everybody else, we need to find new ways to be more efficient. We're working as hard as we can to respond to the shrinking reimbursement support for our services, but, again, without compromising the quality of our programs.

REECE: *How are you attacking that problem?*

WALLER: We have a number of approaches to cost containment. We are looking closely at our budget. We recognize that we can't do all the things that we would like to do over the next several years, and we will have to realize some savings in our capital budget. We will be adding personnel only to those parts of the institution that are growing.

We're looking at the balance of our activities. Is our practice activity appropriately balanced with our research and educational activities?

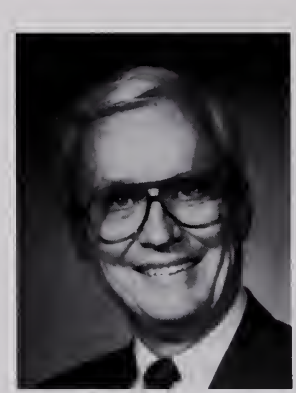
We're looking very carefully at expenses for new technology. The technological advances in imaging, for example, are considerable, and we need to make certain that we use our dollars as efficiently as possible.

We're looking at supplies. We're looking at the way our committee system is structured.

You might say we don't take anything for granted anymore.

REECE: *Has reduced Medicare reimbursement led to some of this rethinking?*

Waller *to page 470*



ROBERT R. WALLER, M.D.

A Man Who Loves Change

REECE: *Stan, you have a rich and varied background, including being an administrator at Northwestern Hospital then Abbott Northwestern Hospital from 1961 to 1971, chief executive at the Henry Ford Health Care Corporation for 17 years, and chairman of the American Hospital Association. In addition to that, you're now pursuing sundry entrepreneurial adventures, and you're an executive in residence at the University of Minnesota Division of Health Services Administration. I'll begin by asking about your early career here in the Twin Cities and why you left for Henry Ford.*

NELSON: I started out in the Twin Cities. I grew up in St. Paul and graduated from the University of Minnesota in hospital administration. The first hospital I ran was Parkview Hospital in Fort Wayne, Indiana. I ran that hospital until coming to Northwestern Hospital in Minneapolis in 1961. I spent the 1960s in Minneapolis. The most interesting event during that period of time was the consolidation in 1968 or 1969 of Abbott and Northwestern hospitals. I think that was the first consolidation of Twin Cities hospitals.

STANLEY R. NELSON

REECE: *How did that consolidation come about?*

NELSON: It came about through the recognition that there was a high level of compatibility between the two organizations. There was a 60- to 65-percent overlap in medical staff. The management teams were compatible. The boards of directors were culturally compatible.

There was a recognition that in order to meet the growing need to develop technology in hospitals, a larger critical mass was needed, not just in terms of the technology itself, but in terms of the medical manpower and clinical subspecialties that were going to be required. Those were the driving factors behind it. If there had not been such a high level of compatibility between the two organizations, it would not have happened,

Stan Nelson is a lanky, loose-jointed, articulate, engaging, and philosophical former hospital executive in his early 60s, who right now is having the time of his life dabbling in multiple enterprises.

These enterprises include helping manage a dialysis and blood therapies company in Michigan, consulting for hospitals around the country, serving on the board of an insurance company for the American Hospital Association, forming a company that sets up HMOs for physicians and hospitals in smaller "second-tier" cities, and devoting time as an executive in residence at the University of Minnesota School of Public Health's Division of Health Services Administration. There he teaches future hospital administrators and is organizing a market research program among the school's graduates.

This might tax the energies of an ordinary man. But not Stan. He relishes building, modifying, and restructuring health care organizations to meet the challenges of change. Stan Nelson is no stranger to any health care organization structure or to the dynamics of change that occur within those organizations. He led the charge in the late 1960s to consolidate and merge Minneapolis' Northwestern and Abbott hospitals; he served for 17 years as the chief executive of the Henry Ford Health Care Corporation, a sprawling, vertically integrated health care colossus in Detroit; he was chairman of the American Hospital Association in 1982; and he was the founding president of Voluntary Hospitals of America, an alliance of 800 hospitals headquartered in Dallas.

As I was interviewing Stan, I thought of the title of Tom Peters' book, Thriving on Chaos: Handbook for a Management Revolution. *Stan is a man who thrives on chaos, and he could write a definitive handbook on steering hospitals through the shoals of competitive turbulence. He always finds a way for organizations—small ones, large ones, fat ones, lean ones, simple ones, and complex ones—to adjust to new realities. He is, in short, a leader who understands how to manage change and to live with the consequences.*

continued

because there were no real economic pressures on either hospital at that time.

REECE: *And when did you go to Henry Ford?*

NELSON: I went there in 1971.

REECE: *That must have been a big challenge. What is the size and the nature of that organization?*

NELSON: It's a large, complicated health care organization, which was one of the reasons I went there. I wanted to gain experience with that kind of organization. Today Henry Ford represents one of the best models of an integrated health care system. Beyond the hospital component, it has a very large multispecialty group practice, a large graduate medical education program, a significant research program, the largest decentralized ambulatory care system in the country, and it has as an integral part of the total system a health care financing piece—an HMO of over 420,000 members. There are larger health care organizations in the country, but probably none as highly developed in terms of vertical integration.

REECE: *How many doctors are there, and are they on salary?*

NELSON: The medical staff is salaried, and it's organized as a multispecialty group practice. There are about 750 to 800 physicians on the senior staff now and it's growing. Henry Ford has a house staff of 450 physicians in 18 different residency programs.

REECE: *How does it differ from the Mayo Clinic?*

NELSON: Functionally, it looks a lot like Mayo. Mayo is larger in terms of the group practice, but the setting is very different. Ford is set in a large metropolitan community—southeast Michigan—with a market of four and a half million people. The function is different in the sense that the Ford system does a large amount of primary care, building on that base to the specialty or tertiary services. Whereas the Mayo organization is set in a small community—southern Minnesota—and is significantly more of a regional and national referral center. Henry Ford's market is southeast Michigan, and it attempts to effectively interact with that market. Mayo has a very different profile and a very different market strategy than Ford does.

"The excess capacity phenomenon you see in hospitals occurred in direct response to society's economic incentives."

REECE: *What was the culture like at Henry Ford? How do you keep an organization of that size and complexity together?*

NELSON: The culture of the organization emanated from the Ford family. The hospital was founded by Henry Ford. The Ford family to this day has a very keen interest in the place. Up until the death of Henry Ford II, a Ford family member has always been chairman of the board. There was a profound respect and admiration for the Ford family contribution.

It's also probably the only large multispecialty group practice that was hospital sponsored. All the other multispecialty groups were physician sponsored and driven. In this case, the original Henry Ford saw the multispecialty group practice as a very efficient way of integrating medical services, so he created that organizational pattern 70 years ago. That continues to affect the culture of the place. The result is a very strong commitment to excellence in clinical practice and a major effort in education and research.

REECE: *Was the Henry Ford hospital and clinic originally intended for the Ford employees?*

NELSON: No. It was always designed as a community service facility and is to this day.

REECE: *You've looked at the health care system from multiple angles. What about the state of American hospitals today? Are they in crisis?*

NELSON: Hospitals are certainly in turmoil. Some of them are in crisis. Their condition is understandable if you look at the economics of the hospital industry. A point that's often missed is the fact that hospitals have responded to economic incentives admirably. Through the '50s and '60s and into the '70s, there were economic incentives for hospitals to grow, to expand, to do more things for more people. And so the system expanded. In 1983, with the advent of prospective pricing through the Medicare program, the economic incentives did a 180-degree turnaround, and hospitals again have responded. They've contracted, they've found ways to manage care more efficiently, to reduce admissions, to reduce occupancy. So the excess capacity phenomenon you see in hospitals, to my mind, occurred in direct response to society's economic incentives. What we see in hospitals is not surprising.

REECE: *The turnover rate among hospital CEOs is now about 30 percent. Does this new prospective payment environment require a different type of leader than 10 years ago?*

NELSON: I don't think there's any question that today's environment calls for different skills and talents and a different mentality than we've seen in the past. If you think about it, under the previous system, which was essentially cost reimbursement, it was virtually impossible for a hospital to fail. There really was no risk inherent in the system. It's now possible for a hospital to fail.

Management mistakes accrue to the bottom line in a way they never did before. In the past, all our mistakes were paid for. Now we have to swallow those mistakes. Today hospitals demand a higher level of discipline and much more skilled management decision making than they ever have before. Many administrators who moved up in the old system haven't been able to keep up with this.

REECE: *Among your other activities, you're now in a company that helps doctors and hospitals organize HMOs in second-tier cities. Why did you make the switch from hospital business? Does it reflect a shift in mindset? After all, HMOs and hospitals, with different goals, are often in conflict.*

NELSON: No. I don't think I had a change in mindset. This work is totally consistent with other work I've done. We had a very large HMO when I was at Ford. I think that the HMO has a distinct contribution to make to the health system. Right now HMOs are getting a lot of bad press. That's a result of broad-based mismanagement. But there are still well-managed HMOs in place today that are doing very well and are making a contribution. Managed care and the HMO model will be here for a long time to come. We'd like to bring that model to communities where it's appropriate and wanted.

REECE: *I know you have helped manage an HMO in Appleton, Wisconsin. Could you describe the size of that HMO, the doctors' role in it, and how well it works?*

NELSON: Our strategy is to address what we call second-tier communities, that is, we're staying out of the large metropolitan areas. We want the physicians in these smaller areas to have a lead position in the ownership and policy direction of the plan. We try to get the physicians and hospital administrators working together. If you get that model in place, you find that not only are the best interests of the patient being provided for, but also the best interests of the providers, the physicians, and the hospital, as well as a concern for the purchaser—typically the employer. It seems to work. I'm not sure this model would function in large metropolitan areas, because the numbers are too large and the communities are too diversified. It's working in places like Appleton partly because everybody knows each other, and there's nothing to fear.

REECE: *Do you believe the demands of managed care require a closer collaboration on the part of hospital administrators and physicians?*

NELSON: I don't think there is any question about it. In one form or another, the marketplace is going to demand hospitals and physicians get their acts together. I hold no brief for any given model. We have a highly integrated organizational model at Ford. We've discussed other models in other communities. I don't care how it comes about in terms of the organizational form, but in order to efficiently serve the marketplace and their communities, doctors and hospitals are going to have to work more closely together.

"In one form or another, the marketplace is going to demand hospitals and physicians get their acts together."

REECE: *Do you think these marketplace pressures require a new kind of physician leader? Do you see these leaders emerging?*

NELSON: Yes, there is a new type of physician leader emerging as the demand for leadership grows. We see more physicians going into the management side of this business. Many of them are doing it very well. Conceivably, if there truly is a surplus of physicians, more of them will have an interest in pursuing a management role.

REECE: *And this new physician has to have well-honed management skills?*

NELSON: Yes. Many of them already are instinctively good managers; others have the interest and are able to develop the skills through practice or through further education. Management is not a true profession. It can be learned along the way, and it can be learned in a variety of ways. Many of today's top managers of corporate America have no formal management education or training. What you see coming out of the medical profession is a very natural evolution in response to a need.

REECE: *Do you differentiate between managers and leaders?*

NELSON: Yes. Leadership is the beginning of the management process. But a lot of leaders are not necessarily good managers, and some good managers, at least at the middle level, are not necessarily good leaders.

REECE: *And what distinguishes a leader?*

NELSON: A leader typically has an idea, a vision of something that needs to be accomplished and can coalesce the necessary components and resources around that vision to make it happen.

REECE: *Today's health care system sometimes seems leaderless. Are we rudderless?*

NELSON: We are in turmoil, no question about that. Given the changed economic incentives and the pressures coming out of the public sector with respect to reimbursement, the turmoil we see shouldn't surprise anyone. We'll see the shakedown of this over the next decade or so as the systems take form and consolidations take place and the industry finds ways to respond to the market.

Here in the Twin Cities, you've seen some forerunners of what will be happening in other communities. I'm referring to the hospital side of the equation. Three or four hospital systems are now emerging in the Twin Cities. When I left the Twin Cities in 1971, there were 24 or 25 independent hospitals. A similar trend is taking place across the country, and I think it will continue for the next decade or so.

REECE: *Do you think a managed care market as saturated as the Twin Cities' will be duplicated elsewhere in the next decade? Nothing here goes unmanaged.*

NELSON: Managed care will develop in different ways in different markets. Experience has dem-

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onstrated that health care is delivered locally or regionally, not nationally. The notion of supermeds coming at a national level has been pretty much dismissed. The degree of managed care will probably reflect the culture of a given community.

REECE: *How do you see the uninsured issue being resolved? Will that be resolved locally or nationally?*

NELSON: I think it will be addressed nationally through public policy. We are seeing growing indications of that today in terms of public policy forums. But the solution probably will be implemented on a local or regional level. And we'll probably see some version of a mandated system requiring industry and business to provide certain minimum health benefit coverage combined with some extension of public programs for those who are unemployed and cannot afford that coverage. The fact that we have 37 million uninsured is something that cannot be tolerated indefinitely.

REECE: *I always wonder about the magic 37 million figure. One-third or so are people under 30, and many of them are uninsured by choice.*

NELSON: Right, but whether or not it's good public policy to permit that kind of freedom is another question. Some of these people are uninsured because their employers have engaged in a strategy to use temporary help to avoid providing benefits of all kinds, not just health coverage.

REECE: *You're back in Minnesota, which you consider home. Now that you're free from the chores of running Henry Ford, you seem to be spreading your entrepreneurial wings. You have somehow managed to engage in a lot of fulfilling activities and a varied life, including your work at the university, your work at setting up HMOs, and your consulting work with various entrepreneurial ventures. Is this a satisfying time for you?*

NELSON: I'm having more fun now than I've had in a long time. I left Ford so I could pursue some other activities while I still had enough energy to do so. I've always had a high level of curiosity about a lot of different things, and I've always had many more things that I wanted to do than I've had time to do them. I suspect that will always be the case. ■

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LETTERS TO THE EDITOR

A Contradiction in Diagnoses

There seems to be a great deal of confusion in the medical community surrounding the diagnosis of chronic fatigue syndrome (CFS). The most recent material from the Centers for Disease Control (Chronic Fatigue Syndrome, February 1989), states, "It is very important for the patient with CFS symptoms to be fully evaluated for other chronic diseases. [This condition] is to be considered by the physician only after all other potential causes of illness have been reasonably excluded." The working case definition (Holmes, et al., 1988) indicates that CFS is diagnosed after technologically ruling out any other medical condition, using history and symptomology of the patient. This diagnosis is proving difficult for many physicians because it cannot be technologically documented.

Many patients whose symptoms would suggest a diagnosis of chronic fatigue syndrome have instead, been diagnosed as having "somatization disorder." This diagnosis appears in the medical charts, in many instances, for years. Like a CFS diagnosis, the diagnosis of somatization disorder cannot be technologically documented. A personality inventory may be used as an *adjunct* to diagnosis but cannot be a diagnosis in and of itself.

The sophisticated patient, struggling for months or years with the symptomology of CFS, is beginning to observe this contradictory posture in a community referring to itself as "scientifically advanced." Inconsistencies and contradictions can never be construed as "science." To hold to one diagnosis that cannot be scientifically documented while disregarding the existence of another *because* it cannot be scientifically documented is a "glitch" in the professional posture of medicine. It is important for physicians to be aware of the fact that it is extremely difficult for the intelligent patient to sit before a physician trying to force-feed us this double standard while calling it science.

Marjory E. Aldrich
Minneapolis, Minnesota

Pleased with Fellowship, *Minnesota Medicine*

I am just finishing a one-year Bush fellowship in Boston. I enjoyed your recent interview with Jon Wemper (*Minnesota Medicine*, February 1989). Jon has done a wonderful job as director of the Bush Clinical Fellows Program. I would also have to agree with Jon that a mid-life sabbatical is a rare opportunity and privilege for a practicing physician. The Bush Foundation is to be highly praised for offering this opportunity to us.

In fact, I have been meaning to write to you for some time telling you how much I have enjoyed *Minnesota Medicine* the past few years. Your interviews, comments, and political analyses are interesting, informative, and well written. Thank you for taking the time and energy to bring us the type of information you do.

I am one who believes that *Minnesota Medicine* should be used just as you are using it—to present interviews with physicians and other people involved in health care, political analysis, information on payment systems, etc. I get 40 other journals each month on clinical topics, so I enjoy the local color in *Minnesota Medicine*.

William D. Manahan, M.D.
Mankato, Minnesota

Misleading Statistics

In the June 1989 *Minnesota Medicine*, (Volume 72, No. 6) on page 323 of your Editor's Notebook, under the heading "Limited Technology Use in Canada," you list the following figures:

Existing hospital facilities	**U.S.A.**	**Canada**
Open heart surgery	793	11
Organ transplant	319	14
MRI equipment	1,200	12

These numbers can be deceiving, since the facilities in the U.S.A. are for 250 million people, and the facilities in Canada are for 25 million people. If you want a strict comparison with Canada on a population-equity basis, the numbers will have to be multiplied by a factor of 10. The final comparison would be:

Existing hospital facilities	**U.S.A.**	**Canada**
Open heart surgery	793	110
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T. N. Ramachandra Rao, M.D.
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A Crisis in Spirit

Charles R. Meyer, M.D.

The charged words "crisis" and "revolution" recur throughout analyses of today's health care. Beneath the surface of health care events hides a quiet crisis, the crisis of spirit in today's practicing physician. Not restricted to the older practitioner with memories of the good ol' fee-for-service days and dreams of retirement beaches, this crisis transcends the boundaries of age, gender, race, and specialty. Physician morale can affect patient care just as much as Medicare budgets or doctor gluts.

Physicians' spirit is suffering in six areas:

Declining salaries: Statistics show level or declining M.D. incomes when corrected for inflation. I don't know any physicians who are delivering pizza for Domino's; most continue to make good livings. But most are dismayed by the sense that it may no longer be enough to practice good medicine and assume that the money will take care of itself.

Loss of independence: Much has been written about the legendary, at times tragic, independence of the medical profession. Long training breeds definitive ideas about medical management and about a physician's unique ability to practice that management. Today, physicians see their decisions modified or reversed by reviewing nurses, bureaucracies, or other M.D.s who have never "eyeballed" their patients. New Jersey's state-appointed ombudsman who must be consulted on the withdrawal of life-sustaining treatment represents the extreme of this intrusion.

Extraneous activities: Four Fs—forms, fone calls, fighting with third-party payers, and fitting into protocols—consume irritating chunks of time previously spent with patients. When doctors lounge and converse they speak of HMOs, PPOs, and PROs rather than MIs, THAs, and DUs.

Criminalization of medicine: This is perhaps the toughest to take. Implicit in many of the moves by the Health Care Financing Administration, third-party payers, and health care analysts is the message that galloping health care costs are caused by doctors' criminal behavior—profiteering referrals, code-gaming, and unprincipled submission of charges. Increasingly, the adjectives "good" and "compassionate" as used to describe doctors are being replaced by "greedy" and "self-interested." "Rich" has always been a modifier for doctor, but it is tougher now to be "rich" and "good."

> **"Doctors attempting to practice ethically and economically feel like they're paying for someone else's parking ticket."**

Punishment of the whole for the sins of the few: Should the "straight" majority be regulated for the few who engage in unethical referrals (7 percent of physicians have any contact with M.D.-owned joint ventures), the high charges in some areas of the country, or the lack of quality monitoring in some hospitals? Doctors attempting to practice ethically and economically feel like they're paying for someone else's parking ticket.

Obliteration of the art with the numbers: Practicing physicians know that some characteristics of sick patients can't be measured. We handle individual cases with specific nuances. Yet our practices are evaluated by algorithm-wielding nurses on case management phones and by Rand-, PHP-, BCBS-, and HCFA-generated standards that attempt to generalize and quantify medicine. Woe to the doc falling two standard deviations beyond some median. It's a "mean" world out here.

These six trends are dispiriting. Physicians are leaving clinical medicine in record numbers. The grumbles that "it ain't fun anymore" become more rancorous. Yet worse than a broken spirit is a corrupted spirit. Physicians may react to this milieu by joining the entrepreneurs, gaming the system, or pining for the glory of yesterday. Or, they may persistently insist on accurate assessment of their practices, fair reimbursement, honest and consistent treatment by third-party payers, and quality patient care as *the* meaningful measure of a health care system. We need doctors who like to talk to, diagnose, and treat patients. We need doctors who are willing to fashion a system that allows them to do that.

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North Memorial Medical Center
Divine Redeemer Memorial Hospital
S. JOSEPH'S HOSPITAL

A Fragile Future for Urban Hospitals?

"Area hospitals seek cures for hard times."
"Ailing financial health may shut more hospitals."
"St. Paul hospital system loses $35 million in fiscal 1988."
"Up to 500 workers face cuts."

These headlines, drawn from recent Twin Cities newspapers, typify current news about metro-area hospitals. Cutbacks to contain costs. Staff lay-offs. Budget deficits. Mergers. Service consolidations. Site closings. Tough times for the hospital industry. ♦ What major factors threaten the financial health and survival of Minnesota's urban hospitals and systems? Are we in danger of losing another hospital. . . or even a whole system? What strategies will make their survival through the next decade possible? ♦ While the financial problems facing the large metropolitan hospitals vary, one word ties them together—change. Change in the reimbursement system. Change in technology. Change in utilization. Change in public expectations. Even change in the speed of change itself.

Joe Moriarity

North Memorial Medical Center

Minneapolis' independent North Memorial Medical Center

"Hospitals claim their costs have risen 18 percent on the average, with Medicare reimbursement increasing at half that rate."

The creation of the prospective payment system in 1983, and the influx of HMOs soon thereafter, knocked the cornerstone out of the old reimbursement system and ushered in a new era of controlled payments and managed care.

"At the time, we accepted the DRG [diagnosis-related groups] system, primarily because we were promised increases that would cover inflation's effects on our costs. But that hasn't been the case," said Scott Anderson, chief executive officer of North Memorial Medical Center in Minneapolis. Though figures vary, hospitals claim their costs have risen 18 percent on the average, with Medicare reimbursement increasing at half that rate.

Herein lies one of the major tensions in the system, explains John Kralewski, University of Minnesota professor of health services research and policy: "Hospitals claim that DRGs aren't keeping up with the normal cost of health care. The government says, however, these costs are going up too fast, and that holding back on DRG increases is simply how they're going to keep the lid on costs."

During this same period, the concept of health maintenance organizations was taking hold as another means of keeping health care costs down. By 1984, HMOs had penetrated the Twin Cities' market deeply and were negotiating with hospitals for discounts on services.

"Hospitals, too, went after the HMOs to boost patient volume, but they offered discounts that subsequently proved to be too large," says William Kreykes, vice president of Acute Care Services at the 12-hospital Health One network, and chairman of the Minnesota Hospital Association Board. "We reaped the bitter fruit of those decisions. There wasn't enough money coming in to cover the services provided. The managed care product has been and still is underpriced," Kreykes said. With strict membership screening policies and incentives to minimize utilization, HMOs currently insure about half the market but account for only 33 percent of hospital admissions and just 25 percent of all revenues.

Today hospitals negotiate their HMO contracts with more savvy, but shortfalls still occur. "Many patients we served over the past year were very ill and required even more intensive care and use of our resources than we anticipated," said Abbott Northwestern chief executive officer, Gordon Sprenger. "Fixed payment contracts just don't take into account changes in patient acuity mix in the short term, because they don't allow adjustments until the next negotiating period. When such a situation occurs, hospitals are forced to look elsewhere to make up for lost revenues."

For Abbott Northwestern, the area's largest private hospital, the difference was made up in staff cuts this spring, when it laid off or reduced the hours of about 250 employees, close to 5 percent of its staff. Two years ago cost pressures forced the hospital to cut the equivalent of 200 full-time jobs.

The cutbacks were needed because third-party payments are not keeping pace with the increase in hospital costs, said Sprenger, who is also president of LifeSpan, a hospital network that includes Abbott Northwestern.

But cost pressures from government and private insurers aren't the only factors creating turbulence in hospital finances. Because financial incentives encourage less use of hospital services, and technological innovations enable doctors to perform more procedures on an outpatient basis, average lengths-of-stay in metro hospitals have fallen 30 percent, from 7.2 days in 1981 to 5.3 days in 1987. While this reduction has helped hold down health care costs, the shorter stays have created another problem: too many empty beds.

"With occupancy running at 45 percent of licensed beds and 60 percent of staffed beds, we probably still have too much capacity in the system," said Vic Ellison, vice president of public affairs at the

Minneapolis-based Council of Hospital Corporations, an industry trade group. "I believe we will see more closings—perhaps a hospital in each city," he said.

Rather than close buildings, William Kreykes suggests hospitals find alternative, revenue-producing uses for the space: "Let's bring a piece of the shopping mall to the hospital. Perhaps we can open small convenience shops for staff and patients, or provide compatible health-related activities in this space," he advises.

Others, like Scott Anderson, believe the problem lies not with the number of beds, but with the payment structure. "If the reimbursement system won't let you generate enough revenue with the beds you've got filled, filling more won't help," he argues.

The fixed reimbursement schedules of Medicare/Medicaid and HMOs together account for 70 percent of all hospital revenues. With no wealthy and generous benefactors in sight, hospitals continue to struggle under the weight of additional financial pressures: inflation, rising salaries (labor accounts for nearly 60 percent of hospital costs), and, with the growth in outpatient services, costs for revamping facilities originally designed for inpatient care.

Providing care for the uninsured adds yet another burden and further depletes bottom lines. "Hospitals in Minnesota provided $60 million of free care last year," Ellison said. "And two-thirds of the uninsured are the working poor—400,000 people in this state alone. It's no longer fair, or possible, to force hospitals to pick up these costs. The margins simply aren't there anymore," he said.

While new technology has enabled hospitals to reduce some expenses, it is, itself, a major factor in the overall surge of health care costs. The competitive nature of the system and the demands of an increasingly health-conscious and knowledgeable public pressure hospitals to continually update equipment and provide more sophisticated care.

The results of these pressures and changes? In 1983, the metro area had 37 hospitals—35 acute-care and two specialty. In mid-1989, there are 28 acute-care and five specialty hospitals. In 1987, half the metro hospitals lost money, while in 1988, the Council of Hospital Corporations estimates that two-thirds will at least break even. But only a handful of hospitals at best will achieve profit margins of 5 percent or above, the threshold most experts believe necessary for hospital viability.

Of great current concern is the viability of St. Paul's five-hospital HealthEast system, with a reported $35 million loss in 1988. As editor, publisher, and health care consultant, Richard Reece, M.D., writes in his April 1989 *Reece Report,* "This $35 million debt shows the extreme difficulties of quickly consolidating multiple hospitals with multiple medical staffs and multiple cultures (profit and nonprofit, Catholic and non-Catholic, specialists and primary care physicians, collegial and hierarchical) into one integrated system."

"Our merger two years ago was from a position of weakness, not strength," said Robert Brown, M.D., president of the combined HealthEast medical staff, "and it didn't miraculously solve our individual hospitals' problems."

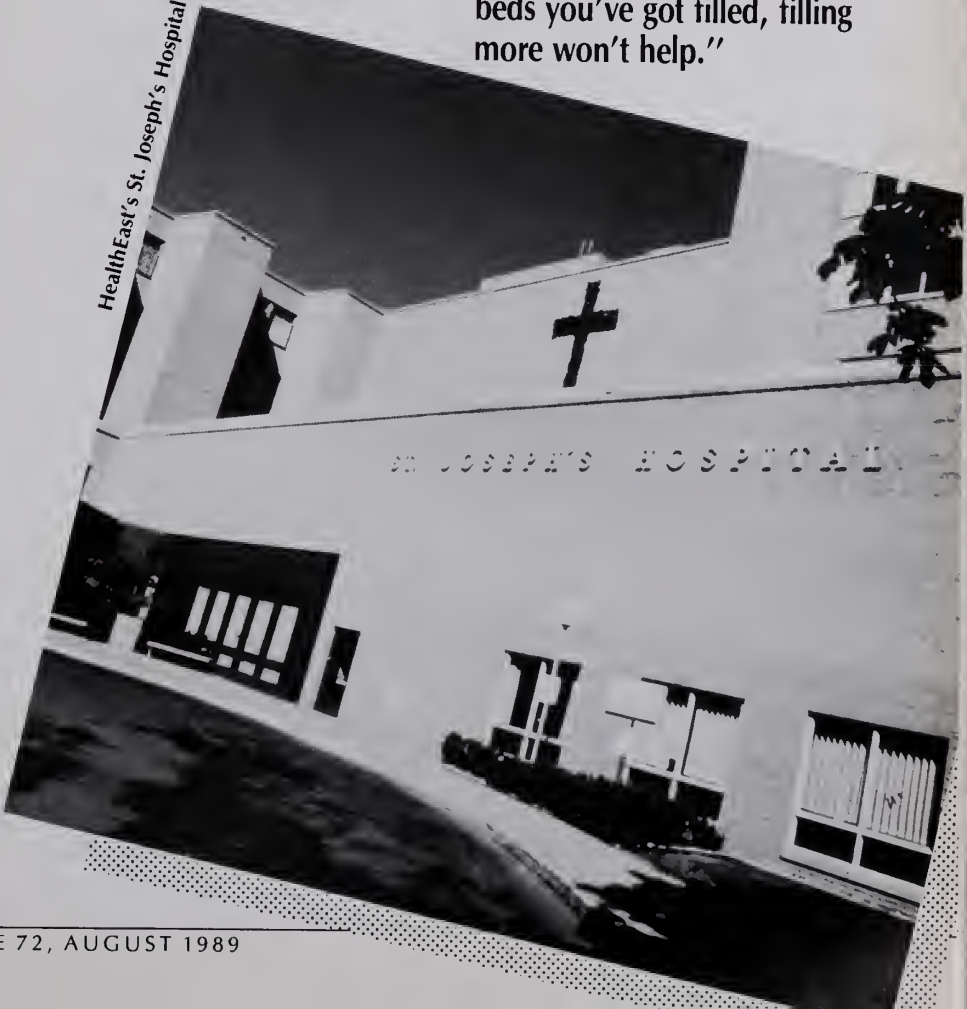
In fact, HealthEast's problems continue. A recent report by consultants Arthur Andersen & Co. and the Hunter Group, hired by HealthEast, predicts the company will lose $20 million this year.

The report recommends HealthEast cut staffing at its five hospitals by about 300 full-time jobs, eliminate 20 management positions, and raise hospital rates 10 to 12 percent.

Strategies for survival in the '90s

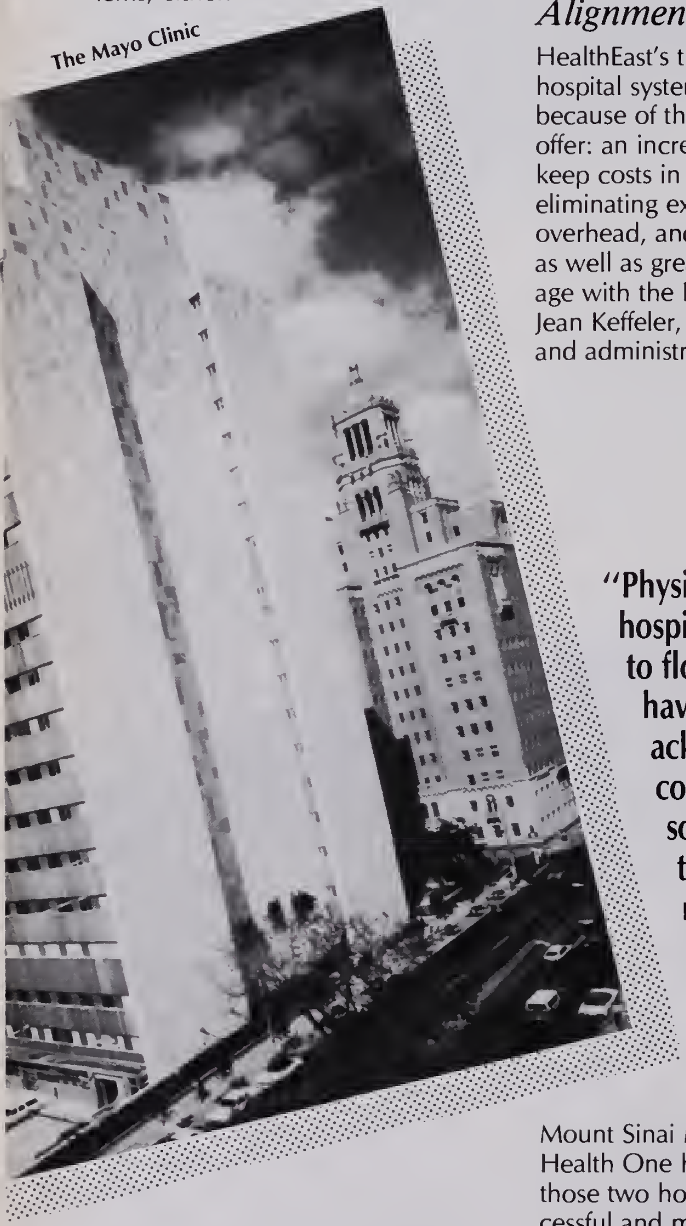
Though the past ten years have been fraught with difficult chal-

"If the reimbursement system won't let you generate enough revenue with the beds you've got filled, filling more won't help."



HealthEast's St. Joseph's Hospital

lenges, hard choices, and more than a few mistakes, many metro providers acknowledge that they've learned much about doing business in this new environment. While they are confident the strategies they are following will ensure provision of and access to quality care in the metro area, they don't expect their strategies to "miraculously solve" their hospitals' problems, either.


The Mayo Clinic

Strategies for survival in the '90s involve, in the words of William Kreykes, "looking at what we're doing in the organization that doesn't add value to the service, and getting rid of it. We have to begin operating differently to free up enough net income to maintain our operations."

No one, Kreykes included, believes that providers will reap any monetary bonanzas in the near future, given the massive and growing federal deficit and the fast-growing number of Americans over age 65. If anything, they anticipate even tighter revenues and greater pressure to control costs.

Alignment with systems

HealthEast's troubles aside, multi-hospital systems are here to stay because of the advantages they offer: an increased opportunity to keep costs in line with revenues by eliminating excess capacity, cutting overhead, and sharing resources, as well as greater bargaining leverage with the HMOs. According to Jean Keffeler, chief operating officer and administrator of Metropolitan-Mount Sinai Medical Center, a Health One hospital, the merger of those two hospitals has been successful and money-saving. "We've eliminated $6 million in operating costs over the past two years. We're clearly more efficient and much stronger together than we were separately, and because Mount Sinai is now part of the Health One system, we had the leverage to negotiate much improved managed care contracts for them," she said.

"Physicians and hospitals who hope to flourish simply have to develop and acknowledge their common objectives so they can work together more closely."

Even though North Memorial, the area's only remaining unaligned, private acute-care hospital, continues to hold to its decision not to merge, it has adopted such key system strategies as rural alliance building, cautious diversification, and specialization. "Each of us has to find our niche in the marketplace," says president and CEO Scott Anderson.

Centers of excellence

Another key to survival? Developing "centers of excellence" within the systems. "By focusing certain services only at certain sites, we reduce duplication and create the volume to justify economically the leading-edge technology," Abbott CEO Sprenger said. "We saw back in the '70s that having independent, medium-sized institutions in multiple locations trying to keep pace with medicine's technological growth and increasing complexity just wasn't going to work much longer."

Feeling the cost-containment crunch and in response to the current emphasis on outpatient treatment, the Mayo Clinic announced in April that it will turn its two full-service hospitals into more specialized facilities.

Over the next five to seven years, Mayo will convert the 791-bed Rochester Methodist Hospital into a center for outpatient surgery, selected outpatient clinical programs, and specialty inpatient services. The 1,179-bed Saint Marys Hospital, also in Rochester, will house intensive inpatient operations.

The change is designed to eliminate duplication of many services between the two hospitals, which previously had operated independently and were competitors, said Robert Fleming, vice chairman of administration of the Mayo Foundation.

"Even though the clinic, Saint Marys Hospital, and Rochester Methodist Hospital had been working closely for years, we knew that to operate as efficiently as we would need to in the future, we had to join forces as one organization," Fleming said.

The 'no-see-ums'

Robert Potts, regional director of Health Care Services at the national accounting firm of Touche Ross, believes that while the systems have done much to control costs and increase efficiency, unrecognized opportunities remain. "After making the easy changes and cuts, have hospitals seriously and carefully revisited the culture of their organization to challenge what they are doing that really services the patient?" asks Potts. "Are they taking full advantage of their system?"

Kreykes says no. He and Potts believe that the term "multi-hospital system" is often a misnomer, that instead we have groups of hospitals that merely belong to one company, but are still organized in much the same way they were 20 years ago. "They are not truly functioning as a system of providers with a strong, logical relationship among them," Kreykes explains. "I do not, for instance, consider Hospital Corporation of America a real system.

"At Health One," continues Kreykes, "we're starting to look at what I call the 'no-see-ums.' " To outdoor lovers, that term describes a nearly invisible insect that nevertheless packs a nasty and annoying bite. To Kreykes, they're "areas of service nearly invisible to patients and doctors," services that may be taking a nasty bite out of revenues. "We're asking ourselves how we can consolidate them or otherwise run them better," Kreykes said. He wonders, for example, whether a system needs a medical records department in every hospital, or a laundry, or a full-service kitchen. "What about standardizing and administering services across the system, eliminating institutional profit-and-losses, and looking instead at product P&Ls? Or have systems found where a particular service was succeeding best within its organization in terms of efficiency, quality, and effectiveness, and then implemented those techniques across the system?" he asks.

Divine Redeemer Me

HealthEast's Divine Redeemer

"Today's consensus holds that there's just not enough capital—either in bricks and mortar or in staff—to broadly diversify or cover a major failure."

Limited and cautious diversification

In response to sharply decreasing revenues from traditional sources, many providers began diversifying in the mid-1980s into such areas as durable medical equipment, real estate, and medical office buildings, but with mixed results. Today the trend is in the opposite direction, as demonstrated by Health One. "We've eliminated our consulting business, housing business, information systems, and our own HMO to focus on what we know and do best—health care delivery," Kreykes said.

Today's consensus holds that there's just not enough capital—either in bricks and mortar or in staff—to broadly diversify or cover a major failure. Hospitals are staying closer to home.

"At Fairview, we're trying to build on strengths we already have within the system, said Carl Platou, president emeritus of Fairview Hospital and Health Care Services. "When we move, we're very careful to ensure it's into an area we know and do well," he said.

Hospital-physician relationships

While hospitals may have to adopt a number of these survival tactics, their future success or failure may turn more on one factor than any other—their relationship with physicians. Changes in government funding let loose a tidal wave of change six years ago that poured through the hospital system. Though in many ways it merely lapped at the feet of physicians, tensions in the relationship between the two groups surfaced.

"It's been difficult for many of us to accept the new players in the decision-making process, and especially to lose some of our autonomy over where our patients go, for how long, and for what diseases," comments HealthEast's Dr. Robert Brown.

The changes created another conflict between doctors and hospitals, as well. As Kralewski points out: "Doctors and hospitals suddenly had divergent market objectives. Hospitals, with controlled revenues, needed to curtail utilization, and physicians, who were paid on a fee-for-service basis—and that was and still is most of them—generate revenue via consumption of services."

Today many see a new wave of change building, with relative value scales and expenditure caps for physicians likely. "Physicians will soon be under some form of prospective payment system, I suspect," Kreykes said. "This change could bring the same sweeping changes to their practices that prospective payment brought to hospitals. With the incentives abruptly changed, we were forced out of our old paradigm. Physicians will be, too, and that will affect their relationships with one another and with hospitals."

Solo practitioners and smaller clinics, squeezed ever more tightly in a vise of falling revenues and rising overhead, will join to create larger practices. Because today's hospital and physician systems are still essentially separate, Kreykes believes some competition could develop as growing clinics add services and procedures formerly done in hospitals to try to bolster revenues.

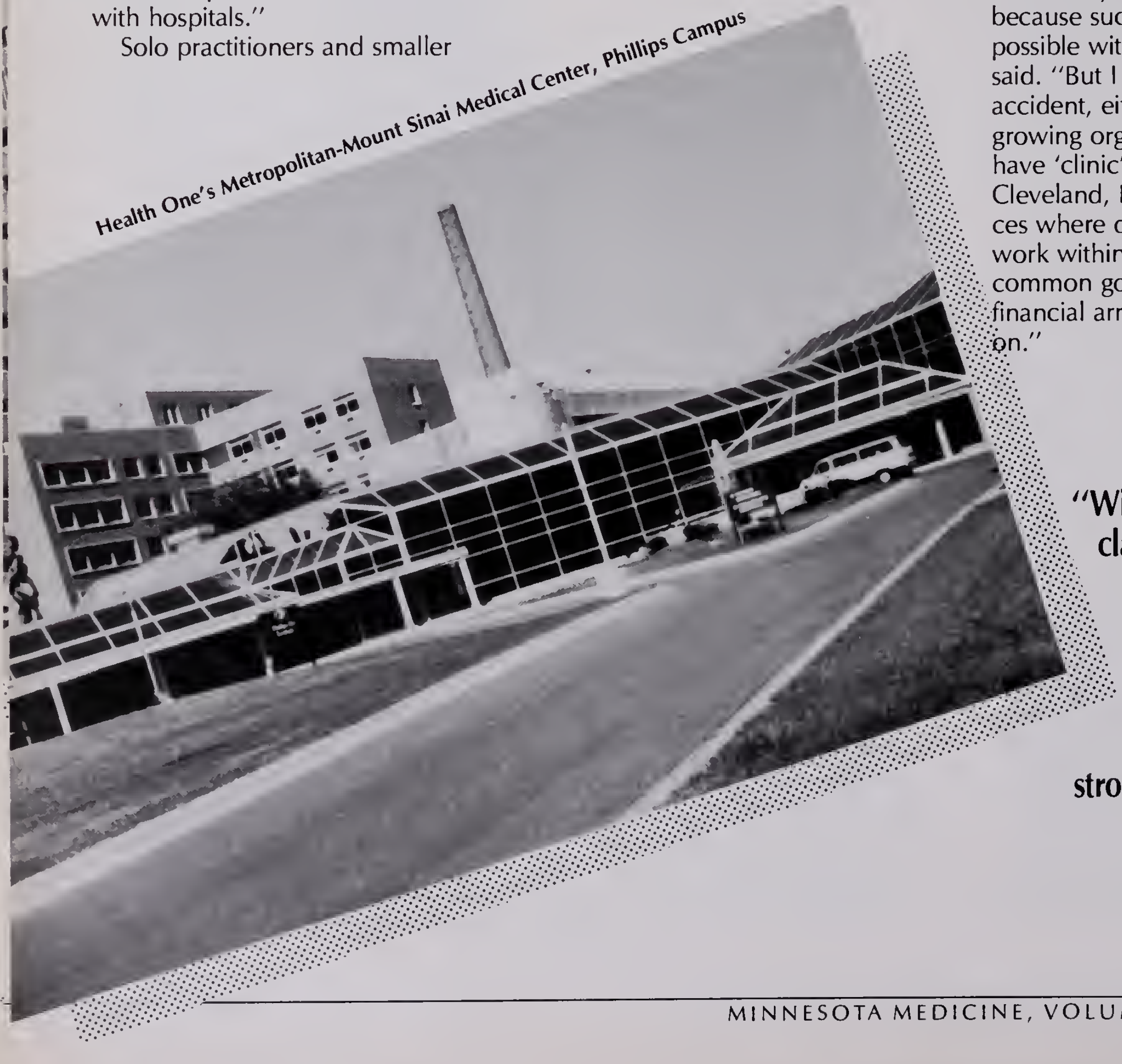
But far greater benefits to both hospitals and physicians lie in greater cooperation. Though Robert Potts speaks from a vantage point outside the system, his comments reflect a common sentiment among providers: "Physicians and hospitals who hope to flourish simply have to develop and acknowledge their common objectives so they can work together more closely. Only by working together can they best utilize new technology, deliver services with quality, and effectively control costs," he argues.

Kreykes makes the same point: "Why should clinics and hospitals both maintain separate medical records departments, buy the same expensive lab equipment, or collect the same patient demographic information? This is unnecessary duplication that adds nothing to the health of the patient, while needlessly absorbing revenue none of us can afford to waste."

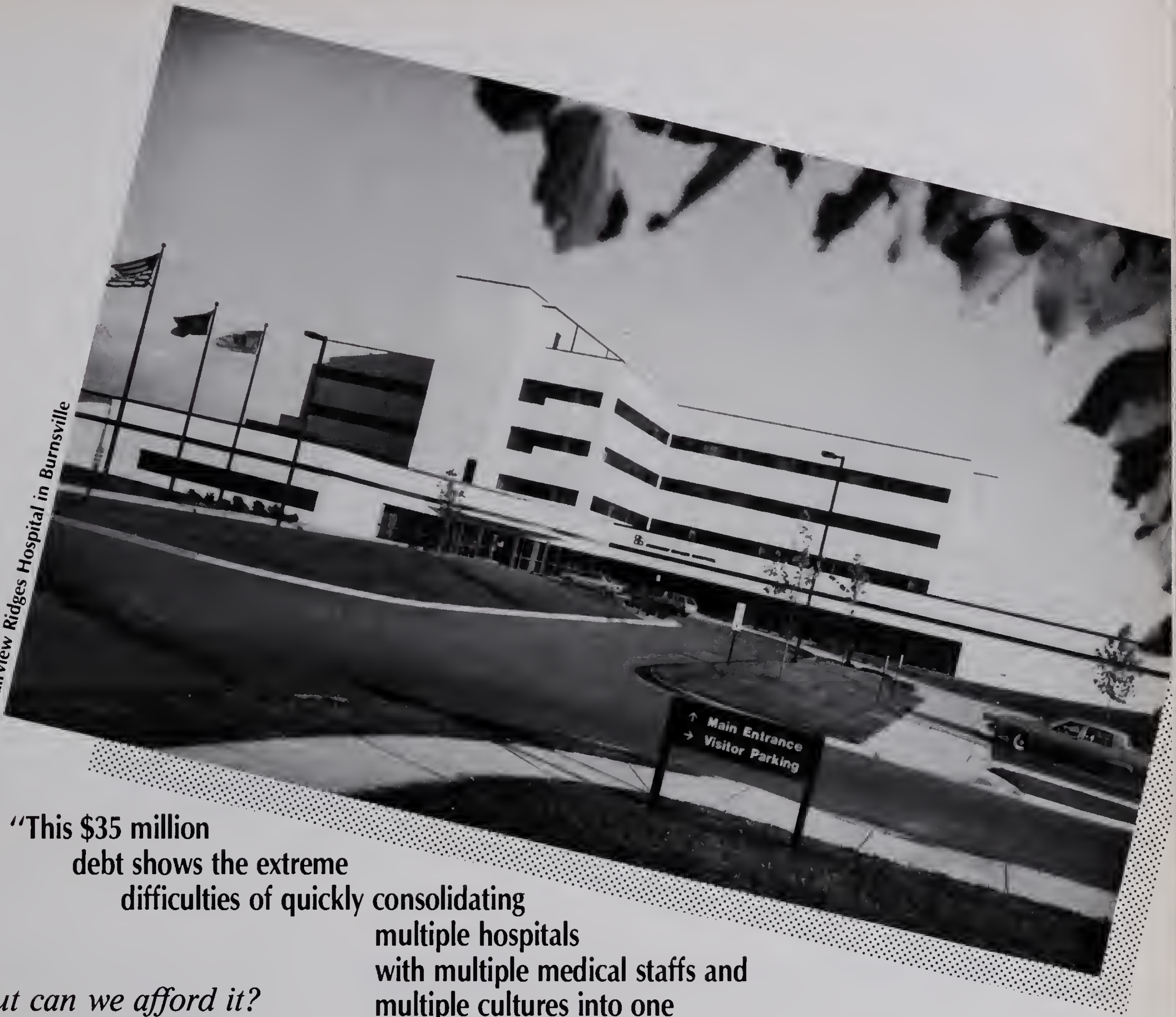
Physician-hospital cooperation presents other opportunities, as well. While hospitals are now shying away from creating their own HMOs because of the risk involved, Kralewski suggests "we might see physicians and hospitals who are working together in a system bypass the HMO, and instead approach large businesses to contract with them directly to provide care."

Ultimately, Kreykes and others believe, marketplace pressures will encourage greater bonding between hospitals and clinics. "I'm not saying that hospitals should necessarily employ doctors, because successful cooperation is possible without that," Kreykes said. "But I don't think it's an accident, either, that the thriving, growing organizations nationally all have 'clinic' in their names—Mayo, Cleveland, Lahey, Geisinger—places where doctors and hospitals work within one organization with common goals and objectives, financial arrangements, and so on."

Health One's Metropolitan-Mount Sinai Medical Center, Phillips Campus



"With new roles clarified and problems under control, the hospitals remaining after we've come through the next few years will be stronger than ever."



Fairview Ridges Hospital in Burnsville

"This $35 million debt shows the extreme difficulties of quickly consolidating multiple hospitals with multiple medical staffs and multiple cultures into one integrated system."

But can we afford it?

Even with doctors and hospitals working together, another major health care issue remains, one that the industry cannot solve alone: the dichotomy between the public's expectations and its willingness to pay. Looking only to the providers offers no solution, because there are both ethical pressures and market incentives for them to provide high levels of care.

As Kralewski describes it, "Today Americans want and expect access to everything the health care industry can provide—the transplants, the latest technology, long-term intensive care—but they scream when they see the bill in their taxes or paychecks. As a society, we are simply going to have to reach a consensus about just how much care we are willing and able to pay for."

Provided the federal government doesn't create a national health plan, "and I don't see that coming for at least 10 to 20 years, if at all," Kralewski said, "the systems will be the big players. We'll see even greater attunement to the marketplace and a premium on service quality. With new roles clarified and problems under control, the hospitals remaining after we've come through the next few years will be stronger than ever. But with revenues even more controlled," he added,"the pressure will remain on."

Though they speak of the future with guarded optimism, all those providing care concur that there's more change ahead. "I don't think the dust will ever settle," says Scott Anderson. "Every day when I come in and open my mail, I'm always afraid I'm going to find some urgent dispatch from the federal government saying, 'Surprise! We've decided to restructure the Medicare program again.'"

As Gordon Sprenger summarizes the situation: "We really have no choice but to recognize we're all in this together. If we don't get the economics of health care under control in a way we—physicians, hospitals, and the public—can collectively live with, the government will step in in a big way, and we will all be subjected to a highly regulated system."

Joe Moriarity is a free-lance writer living in Scandia, Minnesota.

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The Physician's Role in Adolescent Health Education

James A. Rogers, M.D., and Barbara A. Elliott, Ph.D.

This study was designed to identify topics of interest to the adolescent that can be addressed by the physician in the clinic or the classroom and to assess the extent to which such discussions currently take place. A confidential questionnaire was administered to 223 11th-graders and 186 7th-graders in the Duluth public schools between December 1987 and December 1988. Seven broad areas of adolescent life were addressed. Topics that more than 50% of the teens would most like to discuss with physicians include lifestyle, sexuality, family life, and psychological concerns. Reportedly, physicians often discuss lifestyle and sexuality topics with 7th-grade students; substantially fewer 11th-graders report these conversations. Students stated that they prefer to discuss all these issues (except individual body change) with a physician in the classroom setting. The results of the study encourage physicians to talk with teens about lifestyle, sexuality, family life, and psychological concerns, preferably in the classroom, even into late adolescence.

Comprehensive health care of the adolescent patient requires broad involvement by the committed physician. Recent inquiry into the behaviors and concerns of teens has provided a foundation for understanding adolescents' health care needs,[1,2,3] but further information is needed to help physicians provide comprehensive care that meets teens' expectations. This study was designed to determine what issues teens want to discuss with physicians, the extent to which such discussions currently take place, and the preferred location of such discussions.

As noted by Blum, adolescents' health status has not improved in more than 30 years.[4] Although teens are relatively free of childhood ailments and are not yet suffering from the diseases of adulthood, their lifestyles and risk-taking behaviors contribute to increasing medical and social morbidities and mortalities. Increased stressfullness of adolescent life and teen-agers' perception of invulnerability to real-life consequences are factors in this process and are reinforced by our current social setting and media glamourization of high-risk activities.[2,5]

The physician's role in adolescent health and heath education has been primarily limited to office contacts; yet adolescents have the lowest rate of contact with doctors of any age group.[6] Nearly 75% of physician contact with adolescent patients is for medical illness, usually acute infectious illness and injury.[7] However, adolescents have indicated that personal, developmental, and behavioral issues are their primary health concerns and that the typical physician/adolescent patient interaction in the medical clinic setting does not encourage a full expression of these concerns.[8] Teens are often reluctant to seek medical attention for these perceived non-medical problems and prefer to have contact with physicians in other youth-oriented settings.[9] Teens have had difficulty addressing their "hidden agendas" because they fear embarrassment, condescension, and loss of confidentiality. Also, they often view practitioners as inattentive and unresponsive to their unique needs.[10] Questions remain regarding which issues teens want to discuss with physicians and where they would like these discussions to take place.

Methods

A confidential questionnaire was administered between December 1987 and December 1988 to 409 teen-agers in the Duluth public schools. Prior to administering the survey, a physician explained the purpose for the survey and answered questions in all the classrooms. Two hundred twenty-three 11th-graders and 186 7th-graders were surveyed (the two secondary grade levels in which health classes are taught) in the Duluth public school system. Among the students were 210 males and 199 females, with equal representation in the age groups. Ninety-seven percent of 11th-graders reported seeing a physician during their teen-age years; over half of both age groups had seen their physician within the previous year.

The questionnaire presented topics in a nonthreatening, nonjudgmental format, for example: "Would you like to discuss this issue with a doctor?" "Have you already discussed this issue with a doctor?" "Where would you want to talk about this issue, either in a clinic setting or a classroom setting?" Topics asked about were lifestyle and habits, sexuality, body changes, relationships, and various psychological concerns. Space for additional comments was left after

TABLE 1
Topics teen-agers want to discuss and have discussed with physicians

Topics	% want to discuss	% have discussed Total[1]	7th	11th[2]
Lifestyles/Habits				
Exercise	72	35	45	26
Nutrition	66	44	60	29
Alcohol/Drugs	43	43 (ns)	62	25
Tobacco	36	44 (ns)	63	26
Sexuality				
AIDS	65	42	57	28
STDs	60	34	47	22
Birth control	58	26	(ns)	
Relationships				
Communication with parents	62	10	(ns)	
Problems with parents	58	28	40	19
Conflicts with friends	52	15	20	8
Psychological				
Depression	56	24	36	14
Fear of cancer	51	21	31	12
Lack of confidence	50	20	29	11
Body Changes				
Growth	62	29	(ns)	
Acne	52	34	(ns)	

$p \leq .01$ [1]significant difference between "want to discuss" and "discussed"
[2]significant difference between 7th-grade and 11th-grade discussion rates

TABLE 2
Topics teen-agers want to discuss with physicians, gender differences

Topic	% Female	% Male
Overweight	72*	36
Depression	69*	44
Family/friend relationships	56*	39
Illness in family	55*	35
Sexual abuse	42*	20

*$p \leq .003$

TABLE 3
Settings teen-agers prefer for discussions with physicians

Topic	Classroom	Clinic
Friend relationship	63%	*33%
Family relationship	52%	43%
Psychological	52%	44%
Sexuality	49%	44%
Body changes	38%	*55%

*$p < .00004$

each topic section and at the end of the survey. The data were analyzed with respect to grade level and gender.

Results

Table 1 presents the tabulation of responses listed according to general topic areas. The majority of adolescents in both age groups were interested in discussing issues from each category with a physician. Lifestyle issues of exercise and nutrition were of interest to more than two-thirds of teens, whereas less than half wanted to talk about alcohol, drug, and tobacco use. Sexually transmitted diseases, AIDS, and birth control were of interest to a majority (nearly 60%) of the youth. Other topics that most teens wanted to discuss with physicians included relationship issues involving family and friends (52% to 62%), psychological and emotional concerns such as depression (56%) and fear of cancer (51%), and body changes associated with puberty (52% to 62%).

The adolescent respondents indicated that physicians are discussing the use of alcohol, drugs, and tobacco appropriately. However, the teens reported that physicians do not discuss the other issues as often as they desire. As indicated in Table 1, 7th-graders reported discussions of some topics up to 63% of the time; 11th-graders reported discussion rates of less than 25% for most topics.

Gender differences are noted in Table 2. Girls were generally more interested in having discussions with doctors, though statistical significance was only achieved in the listed areas. Nearly three of four adolescent women are concerned about weight or about depression and would like to discuss these concerns with a doctor. Sexual abuse was of interest to a substantial minority of young women as well.

The preferred settings for discussion of these health topics between the physician and adolescents is listed in Table 3. The classroom setting is the preferred site for discussion of all but one topic area (body changes).

Discussion

The first area of investigation in this study asked which topics teens would like to discuss with physicians. It is appropriate to ask teen-agers about their health and lifestyle concerns, since they are often reluctant to express themselves voluntarily in traditional office settings.[9] In addition, adults who work with youth, namely teachers, school nurses, school psychologists, and physicians, have underestimated the level of interest teenagers have expressed in health issues.[11,12,13] The results of this survey begin to reveal what teens desire in these interactions.

The majority of adolescents would like to discuss a variety of health and lifestyle issues with a physician. Not only are teen-agers interested in discussing aspects of their physical health (exercise, nutrition, sexuality, and body changes), but they also exhibit a high degree of interest in mental health problems and in relationship issues involving family and friends.

The 7th- and 11th-grade students express the same degree of interest in desired topics, even though the younger adolescents have had less exposure to most of these issues, both personally and educationally.

There are notable gender differences. Nearly three-fourths of all adolescent girls desire discussion about depression and weight control, even though as few as 5% of teen-age girls are actually overweight.[1] These findings resemble the results of other published studies.[13,14] Malus, from whom we adapted this survey, elicited very similar interest levels over the same range of topics in the large metropolitan area of Montreal.[15]

The second step in this study compared the rates of desired discussion topics with the rate at which these topics are reportedly discussed with a physician. Significantly fewer discussions take place than are desired. Teens report a significant drop-off in discussions with their physicians about these topics between the 7th and the 11th grade, despite an equal interest at both grade levels. Fewer than 25% of all 11th-grade teens reported that their doctors had talked with them about sexually transmitted diseases, alcohol, tobacco, depression, or family conflicts. Reasons for this additional drop-off are not readily apparent. Although physician contact in the previous year was nearly equal between the two age groups, the type of appointment may have differed and thus affected the topics addressed during the appointments. There is a mandatory health screen to address preventive health topics before the 7th grade in the Duluth public schools, but not before the 11th grade. The usual acute-care office appointment often does not allow a busy practitioner the time to deal with issues beyond the primary complaint. Physicians may also be unaware that older teen-agers remain interested but are perhaps embarrassed to bring up these topics.

The third focus of this study addressed where teens would like to have discussions with physicians. As has been noted in other studies, adolescents prefer a site within their social context to discuss the majority of health topics.[9,16] In this sample, teen-agers desired a classroom setting to an equal or significantly greater degree than the clinic setting for all but one of these discussions. The classroom site would provide for group discussions rather than one-on-one interactions available in a clinic setting. Only in the area of growth and body changes was a clinic setting preferred, which is understandable considering the personal implications of bodily changes. For example, a discussion of acne or gynecomastia could cause teen-agers with these problems to become more self-conscious and uncomfortable with their peers.

Recommendations

Physicians who care for adolescent patients need to expand beyond traditional medical practices to provide comprehensive health care to the adolescent patient. Physicians can expand their role in schools and community health education by serving as a regular guest speaker or as a resource person in health classes in the local schools. This contact can provide useful information to the teen-age population and also increase teen-agers' level of trust and confidence in physicians. Teens want to discuss lifestyle concerns, sexuality issues, relationships, and psychological needs with a physician. Attention to the many influences that shape today's adolescent, including peer pressure, the commercial media, and changing social mores, can be part of the discussions in these settings and will add a preventive health dimension to these interactions. Programs and aids exist to facilitate entry into the teaching environment for the willing but hesitant physician. Physician organizations such as Doctors Ought to Care can provide physicians with materials and enthusiasm to meet students in the classroom.[17] Acquiring additional adolescent medicine knowledge and management skills through continuing medical education courses can better equip physicians to handle their own areas of insecurity with teen-age patients.[18,19] Physicians may also want to serve on their local health education committees or school boards in expanding their contacts with health education and advocating for teen health.

Acknowledgments

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References

1. Blum RW et al.: The Minnesota Adolescent Health Survey. Minn Med 71:143-149, March 1988.

2. Resnick MD, Bearinger L, Blum RW: Physician Attitudes and Approaches to the Problems of Youth. Ped Annals 15:799-807, 1986.

3. AMA White Paper on Adolescent Health. American Medical Association, 1986.

4. Blum, RW: Contemporary Threats to Adolescent Health in the United States. JAMA 257:3390-3395, 1987.

5. Planned Parenthood Federation of America: "American Teens Speak" report on a survey. NCMJ 48:267-270, 1987.

6. Ambulatory Care Utilization of Children and Young Adults: National Ambulatory Medical Care Survey, US, January-December 1975. National Center for Health Statistics 13-39 DHEW, 1978.

7. Miller HCE: Approaches to Adolescent Health Care in the 1970's. US Department of HEW, PHS 76:5014.

8. Sternlieb JJ, Munan L: A Survey of Health Problems, Practices and Needs of Youth. Ped 49:177-186, 1972.

9. Resnick M, Blum RW, Hedin D: The Appropriateness of Health Services for Adolescents. J Adol Health Care 1:137-141, 1980.

Adolescent Health References *to page 466*

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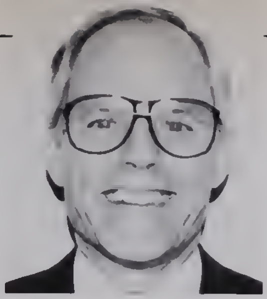

ROBERT D. CHRISTENSEN, M.D.

PRESIDENT'S LETTER

MMA Responds to PPRC Report

For years, the MMA and the AMA have been actively lobbying Congress to reform a cumbersome, inequitable Medicare system. Now, a report by the Physician Payment Review Commission (PPRC) raises hopes that reform may soon be underway. The Physician Payment Review Commission was established by Congress in 1986 to advise it on Medicare policies for paying physicians. The dual focus of the commission's work has been to recommend changes in the methods used to reimburse physicians for their services to Medicare beneficiaries and to slow the growth in spending.

Many of the PPRC's findings and proposals echo long-held opinions of organized medicine, but the report also raises some serious concerns. As the PPRC's recommendations are considered by Congress, we must make sure that any changes in the system preserve our senior patients' access to quality care. To that end, we must ensure that any plan for reform includes correcting geographic disparities in the Medicare reimbursement system. The MMA will continue to work through the MMA Council on Medical Practice and Planning and with members of Congress on these issues. AMA Trustee William Jacott, M.D., and the members of the MMA delegation to the AMA have been very persuasive in the past and will continue to present Minnesota's perspective on Medicare reform to the AMA.

It is vital for physicians to become familiar with the key recommendations of the PPRC report and to make their influence felt in Congress. PPRC's recommendations regarding the Medicare fee schedule filled a 400-page report. I've summarized some of the most important points below:

The Medicare Fee Schedule (MFS): The current payment system based on "customary, prevailing, and reasonable" (CPR) charges should be replaced with a Medicare fee schedule based primarily on resource costs incurred in efficient medical practice.

Relative Value Scale (RVS): The estimates of physician time and effort in the study on the resource-based relative value scale (RBRVS), developed by William Hsiao and researchers at the Harvard School of Public Health, should be used as the basis for the physician work component of the RVS in the Medicare fee schedule.

Assignment/Balance Billing: Although it does not recommend mandatory assignment "at this time," the commission does advocate that charges be limited to a fixed percentage of the fee schedule amount, because it believes that the market for physicians' services does not function well enough to provide adequate financial protection for Medicare beneficiaries. This policy would replace the existing MAAC limits. Balance billing should not be permitted for any Medicare beneficiary whose cost sharing is paid by Medicare. The Participating Physician and Supplier Program and its payment differential providing higher fees to participating physicians should be continued under the Medicare fee schedule.

Practice Costs: Practice costs (expenses for nonphysician inputs) should be incorporated into the RVS through an additive formula. To the degree that it is technically feasible, practice cost factors used in the RVS should apply to categories of services rather than to specialties. Costs of professional liability insurance should be separated from other practice costs. They could either be integrated into the RVS through a separate practice cost factor or be reimbursed directly to physicians.

Specialty Training Costs: The RVS should not include an additional factor for the opportunity costs of specialty training because it would constitute "double counting." Services requiring more training would probably also be rated as requiring more work per unit of time.

Coding: The coding system for evaluation and management services should be revised so that visits are classified on the basis of time as well as site of service, type of patient, and referral status.

Specialty Differentials: Specialty differentials should not be incorporated into the Medicare fee schedule.

Specialty-specific Relative Value Scales: The Medicare fee schedule based on resource costs should determine payment to all physicians, including those currently paid under specialty-specific relative value scales.

Geographic Multiplier: Payments under the Medicare fee schedule should vary from one geographic locality to another to reflect variation in physicians' costs of practice.

The cost of practice index underlying the geographic multiplier should reflect variation only in the prices of nonphysician inputs. As part of the MFS, a uniform policy on the delineation of charge localities is needed.

Conversion Factor: The Medicare fee schedule is a fundamental payment reform. Decisions on payment updates should be made independently of this basic reform. The conversion factor should be updated annually through an expenditure target formula, so that the rate of increase of Medicare expenditures per enrollee determines in part the size of the conversion factor update.

Transition: A transitional stage should begin in 1990, with implementation of the full Medicare fee schedule planned for 1992.

Monitoring Access: The Medicare program should devote greater efforts to monitoring access to care and the degree of financial burden experienced by beneficiaries. Information gathered on access to care should be integrated into the annual update process.

Update Process: The fee schedule should be updated, with the PPRC seeking input from organizations representing physicians, beneficiaries, and other affected parties and developing recommendations to Congress.

◆

The MMA agrees with the PPRC that the CPR system should be replaced with a fair Medicare fee schedule, using an RVS based on the resource costs of providing physician services, multipliers reflecting geographic differences in practice costs, and an appropriate monetary conversion factor. The Harvard RBRVS study would provide a sound basis, when expanded, corrected, and refined, for a Medicare payment schedule.

We strongly support the PPRC recommendation for a geographic multiplier that would correct the unfair disparities in the current reimbursement system. According to an impact analysis of a resource-based relative value scale prepared by the Department of Health and Human Services, Minnesota physicians and seniors would gain by approximately 11 percent if overhead alone is considered in the geographic practice cost index and by about 13 percent if both overhead and cost of living are included in the index.

We're pleased that the PPRC has added a recommendation, absent in earlier drafts of its report, that professional liability insurance premiums should be incorporated into the RVS. We agree that this component should be incorporated in the RVS in a manner distinct from the treatment of other practice costs, and we will continue to carefully consider the PPRC's specific recommendations on methods to implement this plan.

Although the MMA approves of the main thrust of the PPRC's report, some recommendations raise concern:

Assignment/Balance Billing: Although the MMA commends the commission for its decision not to recommend mandatory assignment, we oppose limiting physician charges to a fixed percentage of the payment schedule amount. Balance billing provides the flexibility needed to account for all the differences among physicians in patient mix and practice costs. The prohibition against balance billing for seniors who qualify for both Medicare and Medicaid seems to be an unnecessary regulation. Voluntary programs, such as Minnesota's Physicians Serving Seniors, that provide financial assistance for needy seniors are available in many states, and physicians regularly take into consideration their patients' ability to pay. The MMA also continues to oppose the discriminatory differential in payment for "participating" physicians.

Conversion Factor: The initial conversion factor should be established as at least budget-neutral and should not be used directly or indirectly (through an inappropriately low prevailing charge update) as a means of making arbitrary budget cuts. An update process that relies heavily on expenditure targets rather than on the actual health care needs of Medicare patients, as well as documented changes in the actual resource costs of providing physician services, could lead to rationing. Practice parameters and utilization and quality review would be a more effective way to deal with the rising cost of medical care.

The MMA will continue to consider a number of other PPRC recommendations concerning expenditure targets, effectiveness research and practice guidelines, utilization and quality review, payment reform, improvements to the data system, funding, and risk-sharing arrangements in prepaid health plans.

Those desiring more information on this report can contact the MMA staff at (612) 378-1875. ■

Adolescent Health References from page 463

10. Herold ES, Goldwin MS: Why Adolescents Go to Birth-Control Clinics Rather Than to Their Family Physician. Can J Pub Health 70:317-320, 1979.

11. Orr DP, Weiser SP, et al.: Adolescent Health Care: Perceptions and Needs of the Practicing Physician. J Adol Health Care 8:239-245, 1987.

12. Hodgson C, Feldman W, et al.: Adolescent Health Needs: Perspectives of Health Professionals. Can J of Pub Health 76:167-170, 1985.

13. Sobal J, Klein H, et al.: Health Concerns of High School Students and Teachers' Beliefs about Student Health Concerns. Ped 81:218-223, 1988.

14. Davis SM, Harris MB: Adolescents' Questions About Sex. J Adol Health Care 4:225-229, 1983.

15. Malus M, et al.: Priorities in Adolescent Health Care: The Teenager's Viewpoint. JFP 25:2:159-162, 1987.

16. Bearinger L, Gephart J: Priorities for Adolescent Health Recommendations of a National Conference. MCN 12:161-164, 1987.

17. Shank JC, Erickson RA, Miller G: An Assessment of the Effect of "DOC Talk" on School Children in Rural Iowa. Fam Med 19:129-132, 1987.

18. Blum RW: Physicians' Assessment of Deficiencies and Desire for Training in Adolescent Care. J Med Ed 62:401-407, 1987.

19. American College of Physicians: Health Care Needs of the Adolescent. Ann Int Med 110:930-935, 1989.

Negotiating Provider Agreements

Challenging the 'Form' Agreement

Konrad J. Friedemann, J.D., and Sheva J. Sanders, J.D.

When HMOs and other managed care plans first became prevalent, it was common for physicians to enter into provider agreements with little comment and without negotiating any changes. Providers were willing to accept the plans' opening offers for a variety of reasons. Physicians often believed that the agreements were simply not negotiable; that is, you accepted the form contract or you were excluded from participation. Many providers were simply unaware of the substantial impact these agreements would have on their well-being, and accordingly, saw no reason to negotiate the agreements. Also contributing to physicians' inertia was a fear of being excluded from the new provider networks. No one wanted to run the risk of being excluded from what had been billed as the future of medicine.

The experience of the last few years has changed the provider community's approach to managed care contracting. Providers are beginning to see that negotiations are possible, and often necessary, before entering into provider agreements. Most providers know of at least one colleague who has had a negative experience as a result of his or her affiliation with a managed care plan. We now know that it is not uncommon for providers to face significant financial liability under their third-party payer agreements. We also know that plan fee schedules often prove inadequate or have been based on market conditions (i.e., price) and not on provider needs. The myriad administrative problems suffered by many of the plans include late payments, miscalculated annual or final settlements, inaccurate or untimely utilization data, and questionable utilization review practices. Each of these problems can adversely affect the operational and financial well-being of the contracting providers. As a result, physicians are becoming more vigilant and critical in analyzing proposed provider agreements.

"No one wanted to run the risk of being excluded from what had been billed as the future of medicine."

The provider community's experience with managed care has not been entirely negative. Some of these relationships have proved beneficial, or at least acceptable, to providers. Well-negotiated agreements have even resulted in significant earnings for some groups. This article is intended to familiarize you with some of the basic steps in analyzing any provider agreement that is presented to you. Although each potential contract and each payer must be analyzed on its own terms, we will point out some of the more common areas of concern. Our intent is to give you the confidence and insight you will need to protect your own interests.

Is the Agreement Worthwhile?

You should first assess the value of the proposed relationship to your practice. In most instances, the plan will purport to offer you two major benefits: access to patients that you would not otherwise have and a predictable and dependable source of payment. You must test the veracity of these claims and quantify their value to you.

The agreement should specify just how the plan is going to build your patient base. For example, the plan should perform marketing activities on your behalf. You should make inquiries, both of the plan and your colleagues, about the plan's history and its strategies for marketing and product development. It is not unheard of for a plan to use its affiliation with a medical group to recruit the group's existing patients as subscribers, but then to contribute no significant growth to the group's patient base. Without the provider agreement, the plan would not have been able to make inroads into the particular market. If the provider subsequently elects to terminate its affiliation with the plan, it runs the risk of losing its patients.

The contract should specify the terms and timing of all payments and should include adequate remedies for non-payment. You should consider the plan's track record for payments to other providers. Again, you will want to make reference to both the literal terms of the agreement and to the provider community's experience with the plan. You should analyze the proposed payment terms for workability, reasonableness, and clarity. In most cases, the major issues relating to payment will be the amount of payment and the timing of payment. Some of the plans are notoriously late and inaccurate in making payments. Even the most favorable agreement cannot protect you from a plan that simply fails to comply with its obligations. As a practical matter, it is unlikely that you would resort to the courts to enforce these obligations under the agreement; litigation is rarely a satisfactory remedy for chronically late and inaccurate payments. Accordingly, the plan's reputation and past performance in this area are critical. It is also crucial that you establish that the plan is solvent.

Even if the plan can assure you that it will build your patient base and pay you on time, the relationship may not necessarily be advantageous. If you have a full and solvent patient load, these promises may be of little value. Of course, you must consider the possibility that the plan will be able to gain significant market share, and ultimately, preclude your patients from seeing you in the event you are not a participating provider.

How Much Risk Will I Assume?

You should analyze your financial risk in entering into the agreement. If the plan proposes to pay you on a discounted fee-for-service or fee-schedule basis, the risk is relatively easy to assess. The only real question is whether or not the proposed payment is adequate to justify your involvement. If the plan proposes a capitation relationship, the question is more complicated. It will generally be impossible for a lay person to determine the adequacy of a proposed rate of capitation without the input of an actuary. The importance of this inquiry rests in large part on the scope of the risk you are assuming. Some agreements will provide for a maximum limit on the amount of liability a provider can incur. Risk may also be tempered by the purchase of stop-loss insurance covering the provider's risk.

"Even if the plan can assure you that it will build your patient base and pay you on time, the relationship may not necessarily be advantageous."

The potential risk in a capitation relationship can be enormous. One significantly ill patient can result in substantial inpatient costs. If the provider is at risk for any component of inpatient costs, it may find itself in an untenable position. Many plans have sought to minimize this risk by treating individual providers as part of a larger risk-sharing pool. The potential risks and benefits of the relationship may well hinge on the mix of providers and patients included in the pool. Again, the involvement of an actuary would be very helpful in analyzing your exposure. If the plan utilizes holdbacks (also called withholds), you should make sure that the agreement adequately specifies the circumstances under which these amounts will be returned. You should also assess the likelihood that the amounts will be returned, based on past performance and the current financial prospects of the plan.

You should be aware that Minnesota law imposes an obligation on providers to continue to serve HMO patients in the event of the insolvency of the HMO. This obligation can run as long as 120 days. By merely entering into a provider agreement, you are running the risk of being called upon to provide uncompensated care to covered patients for a prolonged period. While astute drafting might minimize this risk, you should satisfy yourself that the benefits of the agreement warrant undertaking the risk. This feature also highlights the necessity of assessing the financial solvency of the plan.

You should carefully scrutinize any other requirements that the agreement imposes on your practice. Compliance with quality assurance, utilization review, and patient grievance procedures can be costly and burdensome. In particular, utilization review can cause serious problems. Being singled out as an inappropriate utilizer can carry professional as well as financial repercussions. If utilization patterns within your group practice vary, perhaps because of differing patient profiles or adverse selection, you should consider the possibility that the plan's disapproval of a particular physician's pattern of utilization could cause internal dissension. For example, if the disapproval is accompanied by financial penalties, there may be some dispute as to who should bear the brunt of the loss.

"Patient identification, precertification, and treatment protocols can all cause significant practical problems for providers."

Patient identification, precertification, and treatment protocols can all cause significant practical problems for providers. In a notorious California case involving that state's Medicaid system, a physician was held liable for the damages a patient incurred as a result of her early discharge from the hospital. Despite his belief that additional hospitalization was required, the physician discharged the patient because of the payer's insistence that additional hospitalization was not indicated. This case illustrates the importance of establishing functional and acceptable operational requirements. A provider should not commit itself to abide by protocols that have the potential of impairing the service rendered to patients. The fact that noncompliance with specified operational procedures, such as precertification, often results in nonpayment or some other financial penalty further underscores the importance of assuring that these provisions are acceptable.

Legal counsel and actuarial consultants can assist you in identifying and articulating the substantive concerns that we have discussed. These consultants can also help with a myriad of other concerns that often arise under these agreements. In addition, your lawyer can help you identify technical legal and drafting problems within the agreements. These consultants can assist you in developing a negotiating strategy, and if desired, can negotiate with the plan on your behalf.

Should I Negotiate?

Once you have analyzed the contract and have identified any problem areas, you should develop a negotiating strategy. At a minimum, you should clarify the importance of the various issues and the range of positions on those issues that you would find acceptable. You should also analyze your leverage against the plan. If you are a large multispecialty clinic located in an area with little competition, you will have significant leverage. If you are a solo practitioner in the metropolitan area, with significant competition, you may have limited leverage. This is not to say that the plan will not be willing to negotiate with you. Very often the plan will not see your requests as problematic. In fact, your concerns may simply serve to clarify what the plan believes to be terms of an acceptable relationship. Finally, you must identify the most efficient players with whom to negotiate. It is preferable to work with someone with the authority to make the concessions and changes that you are requesting, rather than struggle with an intermediary who may have only limited authority.

Konrad Friedemann and Sheva Sanders are attorneys with the Minneapolis law firm of Fredrikson and Byron. Konrad Friedemann is chair of the firm's 10-member Health Law Group. Sheva Sanders is a member of the Health Law Group and the firm's Tax and Business Planning groups.

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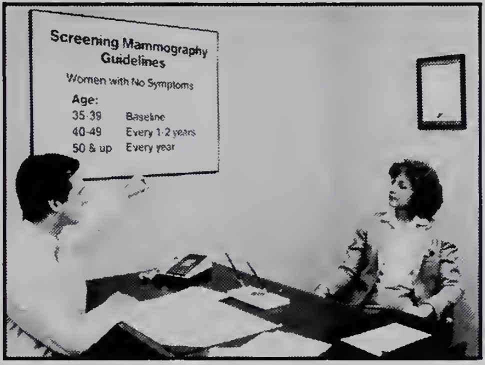

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Waller from page 442

WALLER: Most definitely. Mayo is a people-oriented institution, as you know. Most of our dollars go to support our people. We operate on the principle that income beyond our operating expenses at Mayo goes back into the institution to improve the quality of our programs. Our operating margin is about 5 percent. The allowance for Medicare patients is nearly 25 percent, so clearly, we need to be concerned about the long-term effects on the institution of reduced Medicare reimbursement. In 1988 we were not reimbursed for $20 million to $22 million we spent providing services for our Medicare patients.

REECE: *About six months ago it was announced that Mayo was reconfiguring the Saint Marys and Methodist hospitals in a more efficient system. Could you explain what that was all about?*

WALLER: Yes. In the past, we've had virtually two identical acute care hospitals in Rochester, 10 blocks apart. They have been similarly equipped and similarly staffed, and most of the services have been the same, with some exceptions.

Under our new plan, we will still have the two hospitals in Rochester, but they will have different emphases. Saint Marys Hospital will provide the more intensive care. It will house most of the intensive care units, for example, and the major inpatient surgical facilities, as well as the emergency trauma unit. Methodist Hospital will emphasize outpatient surgery and selected inpatient services. In the last five years, the number of outpatient surgical cases at Methodist Hospital has grown from about 7 or 8 percent to more than 30 percent. We plan to further develop these services at Methodist Hospital, which, of course, is one of the major trends of modern-day hospital care.

REECE: *Mayo has invested a lot of money in new construction in Rochester. What are you building?*

WALLER: The construction projects include our education building, which will be named after Harold Siebens, a major benefactor. We are also adding 10 floors to the Guggenheim Building, which is where much of our basic and other research is conducted.

These two construction projects make a statement about the future of the institution. We have taken the position that the quality of our clinical services will be enhanced by strong programs in research and education. We think the keys to our future success have a lot to do with whether or not we can provide the environment for physicians and scientists to ask questions and to seek answers.

"We're working as hard as we can to respond to the shrinking reimbursement support for our services without compromising the quality of our programs."

Additionally, we have completed some construction of the Methodist Hospital plant. This is not an expansion, really, because we're not adding beds. We're adding support areas for the hospital. Adjacent to the Methodist Hospital is the Charlton Building, named in honor of one of our major benefactors, the Charlton family. This is both a support building to the hospital, as well as an outpatient facility. In it are housed anesthesia offices, nuclear cardiology, diagnostic radiology, radiation oncology, obstetrics, a pain clinic for patients with long-term pain problems, and a blood bank facility. It's really a combined outpatient and inpatient structure.

Other construction relates to Saint Marys Hospital, which is celebrating its 100th anniversary this year. We'll be updating some portions of that hospital as we shift its emphasis to accommodate additional intensive care programs.

REECE: *As you're investing more in Rochester, you're also expanding your facilities in Scottsdale and Jacksonville, which are just over two years old now. Could you share with us the track record of those places and your plans for expansion?*

WALLER: Are our Scottsdale and Jacksonville branches successful? Well, we have established six criteria to measure success. One, can we recruit outstanding staff to both facilities? Two, is there patient demand in both regions? Three, are patients satisfied when they are taken care of in those locations? The answer to those three questions is yes. We've recruited outstanding staff, we've been pleased with the demand, and we have independent studies suggesting that patients are satisfied with their care.

The other criteria relate to the presence of research and education in both locations. We now have education programs beginning in both locations, with residents rotating into those facilities. We have a director of research, Dr. Elliott Richelson, a biochemist and psychiatrist, at Jacksonville, and we have endocrinologist researcher, Dr. Hunter Heath, in Scottsdale.

We are very interested in establishing strong programs in research and education in Jacksonville and Scottsdale, just as we are in Rochester. That's what works best for us. Our faculty is there to teach. We're trying to create an environment that works best for us in both locations. This is very expensive and has taken a lot of time, energy, and other resources, but the financial viability of both facilities is increasingly sound.

Basically, we're pleased with what's been happening to date. Dr. Richard Hill is the leader in Scottsdale, and Dr. Richard Weeks in Jacksonville. They have done a spectacular job. We have about 75 physicians in both places. Our immediate plans are to expand our facilities to allow growth to reach 120 physicians in both locations. We think that is the model that will be most efficient for us in terms of the mix of subspecialists.

REECE: *What are your hospital affiliations in those two locations?*

WALLER: Jacksonville's St. Luke's Hospital is a 280-bed Mayo-affiliated hospital. It's a unique model to our system in that not only do Mayo physicians practice in that hospital, but community physicians do as well. St. Luke's is one of the oldest hospitals in Florida. It used to be in northern Jacksonville, but it moved to southeast Jacksonville into a new facility and, I might add, before Mayo Clinic made the decision to come to Jacksonville. That's the hospital where most of our patients are admitted, and it is busy and growing.

REECE: *What impact have you had on the medical community there? What percent of the market are you?*

WALLER: We're a small but growing part of the health care community. Jacksonville is a large city with many hospitals, and we're there to join an already excellent community of physicians and scientists. We hope to be able to adapt to the growth anticipated in the Sunbelt.

REECE: *And what is the situation in Scottsdale?*

WALLER: We admit patients to the Scottsdale Memorial North Hospital, which is also growing.

REECE: *One of your concerns as you moved to Scottsdale and Jacksonville was keeping the Mayo staff integrated and thinking as one. To achieve that end, you've invested considerable money in a telecommunications system. Among other things, that system allows you to have joint staff meetings and to share X-ray images, to look directly at Scottsdale and Jacksonville patients from Rochester, and in the future, to examine pathology specimens from all locations. How has this state-of-the-art system worked in practice?*

WALLER: Without any doubt, I can tell you we use it to its maximum capacity. It's in use almost every hour. We use it for administrative purposes, for educational and research purposes, and also for patient care, to seek consultations from any part of the system. With the patient in the examining room, a three-way conversation can take place. So certainly, telecommunications is an effective means for enhancing integration.

Equally important is our commitment to interdependence and family rather than to autonomy. We don't refer to our Jacksonville and Scottsdale clinics as satellites. "Satellite" tends to imply something that's out in orbit or an appendage to a larger entity. We like to say that Jacksonville and Scottsdale are every bit a part of the Mayo family as the Rochester facility. Most of our physicians and many of our paramedical and administrative colleagues now in Jacksonville and Scottsdale have spent significant amounts of time in Rochester in the past and are familiar with our culture here. And, we also travel a good deal to exchange ideas and help one another.

Perhaps you are really asking whether or not the Mayo culture is transportable or transferable. We believe increasingly that it is, and we are making every effort to define more precisely the concept of a Mayo system of health care, with facilities in three locations.

REECE: *What trend has most affected Mayo in recent years?*

WALLER: Mayo, like every other institution, has been influenced by the changes in reimbursement—particularly in our hospital practices in Rochester. Occupancy rates, average length of stay, number of patient days, and our ability to cover the cost of hospitalization have declined over the last few years. We've not been able to pass the increased cost of providing care on to a large portion of our patients by increasing fees; it's just not permissible to do so. One response to this major trend has been to modify hospital practice patterns, which we hope to accomplish in the next five to seven years. We intend to be more efficient and to be more responsive to our patients, who are the long-term beneficiaries. ■

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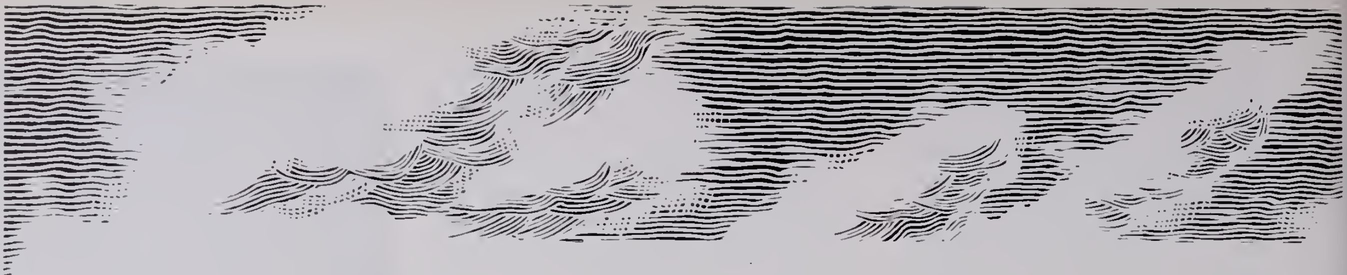
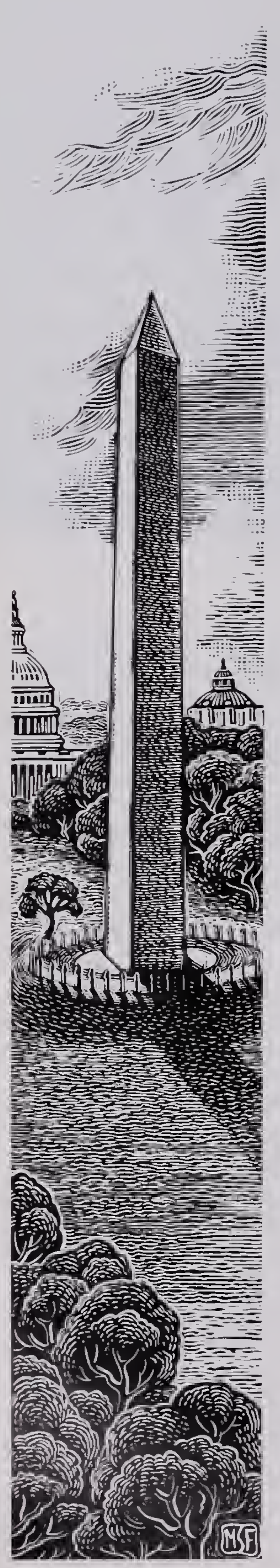


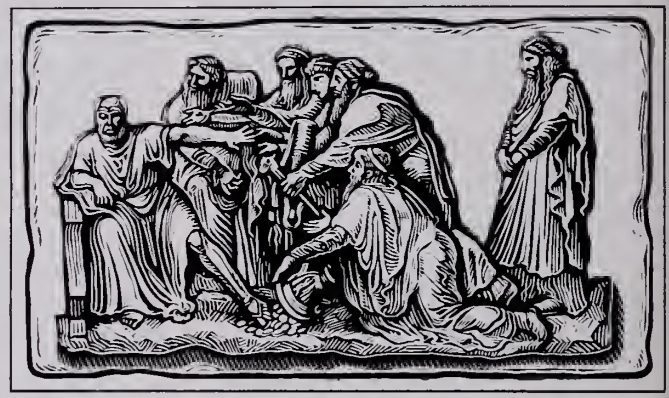


OVER A CENTURY AGO,

a thousand visionary physicians across the nation bestowed a commemorative stone carving to the Washington Monument. This patriotic display symbolized their unrelenting devotion to a new republic founded on freedoms—including the freedom to practice medicine for the best possible health of all its people. *Today your help is needed to restore this symbol of our profession.*

Because the commemorative stone has suffered from severe erosion and defacement, the American Medical Association is launching a campaign to raise money from physicians to restore this symbol of medicine for the National Park Service. Every contribution made to this effort will serve as a statement of each physician's personal affirmation and commitment to health and medicine in America.

Please take part in rededicating the commemorative stone as a shining example of the strength of medicine in a free and strong society. Contributors who donate $100 or more will receive a memorial replica of the carving as a token of appreciation. Send your tax deductible contribution for this timeless symbol today. Thank you.



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NEWS CLIPS

HOW INTERNS AND RESIDENTS USE THEIR TIME

Interns and residents in internal medicine are hampered by long hours and lack of sleep and spend relatively little time in direct patient contact, concluded a study in the June 22 *New England Journal of Medicine*. The interns and residents are also faced with constant interruptions by pages and phone calls, performing procedures non-physicians could do, and time-consuming patient record keeping, according to the study by Nicole Lurie, M.D., of Hennepin County Medical Center (HCMC), and colleagues.

Thirty-five house officers (interns and residents) were studied during March and May 1988 at HCMC, University of Minnesota Hospital (UMH), and Minneapolis Veterans Administration Hospital (MVAH), all Minneapolis institutions with differing patient populations and methods for admitting and caring for patients at night. Lay observers with extensive training in observational techniques were assigned to follow and document the activities of physicians throughout a shift, including meals and sleep time. Most previous studies have relied on interns' and residents' own records of their on-shift activities.

Researchers found a considerable amount of time was spent by house officers in communications (writing or reading charts, answering pages, or taking phone calls) or basic activities such as sleeping, eating, or walking. Relatively little time was spent directly evaluating patients—talking to them, gathering histories, and doing examinations. Interns at HCMC averaged 31 minutes, UMH interns 28 minutes, and MVAH interns 24 minutes per night in patient evaluation. Almost no time—two to five minutes per shift—was spent communicating in person with patients' families.

Up to 12 percent of physicians' time was spent on procedures (e.g., inserting IV catheters, drawing blood, etc.) that could have been done by non-physicians.

And sleep time—about four to five hours a night—was frequently interrupted. Only one quarter of individual sleep episodes at HCMC and less than half at UMH and MVAH were more than 90 minutes.

METAMUCIL AND CHOLESTEROL

A study by a team of University of Minnesota researchers published in the June 16 *Journal of the American Medical Association* reported that psyllium, an ingredient in Metamucil, can have a significant effect on lowering blood cholesterol levels.

"The most significant part of this is it's the first study to demonstrate psyllium—a natural, soluble fiber—as a useful addition to a low-fat, low-cholesterol diet and shows it causes a further reduction in blood cholesterol," said Larry Bell, M.D., director of Cardiovascular Risk and Lipid Service at Hennepin County Medical Center.

Bell was one of five researchers who worked on the 20-week study of 38 men and 37 women during 1987-1989 while he was associate director of the Heart Disease Prevention Clinic at the University of Minnesota.

POST-POLIO WORKOUT

Inactivity may be the worst response to pain and fatigue currently experienced by people who survived the great polio epidemics. Exercise—done carefully—may be the best response.

In the first part of a recently completed, three-year study of 37 polio survivors by researchers at Sister Kenny Institute in Minneapolis, carefully prescribed exercise for cardiovascular conditioning increased endurance and strength and decreased fatigue among study participants. Findings of the study, published in the June 9 *Journal of the American Medical Association,* encourage the use of exercise therapy as a technique to treat post-polio syndrome and other diseases that cause neuromuscular degeneration, such as multiple sclerosis and diabetes.

NURSING HOME REIMBURSEMENT PROPOSAL

Frustrated by regulations that it sees as stifling innovation, the Minnesota Coalition on Health recommended in June that the government pay nursing homes (and other institutions that care for the elderly) based on their treatment results rather than on how much they spend. The coalition proposed that the state conduct a 40-nursing-home study to see if the residents' quality of life improves in homes that are rewarded for innovative programs, such as those that foster living independently, as compared with homes that use the current cost-based reimbursement system.

HMO-TYPE PLAN FOR POOR

Poor patients at a Hennepin County Medical Center (HCMC) clinic are able to receive care for $10 to $50 a month—depending on income—plus $1 per visit, under a new service implemented July 1. Family Medical Center, affiliated with HCMC, will limit the use of its Part-Pay Program to 500 people who already use the clinic and are not poor enough to qualify for welfare assistance through Medicaid or General Assistance, have inadequate insurance, and meet income specifications. Another 500 patients from the clinic will be enrolled during the first half of 1990.

FOUL EMISSIONS

Two Minnesota companies were ranked among the worst emitters in the nation of potentially hazardous substances. In two separate reports, Sheldahl, Inc. of Northfield was listed as the 45th worst industrial source of carcinogens in the nation, and the 3M plant in Hutchinson ranked 12th worst in the nation in the much broader category of toxic emissions. The results, compiled by the Minnesota-based Natural Resources Defense Council, were for 1987.

JACOTT AMA TRUSTEE

William E. Jacott, M.D., assistant vice-president for health sciences at the University of Minnesota was elected to a three-year term on the Board of Trustees of the American Medical Association (AMA) June 21 at the AMA Annual Meeting in Chicago. As one of the 14 at-large members of the AMA Board of Trustees, Jacott will carry out health care policies developed by the AMA House of Delegates. As an AMA Board member, he will also participate in making AMA policy decisions on national health care issues in the interval between meetings of the AMA House of Delegates. Jacott was nominated and sponsored by the MMA and endorsed by the North Central Medical Conference, the American Academy of Family Physicians, and the Hennepin County Medical Society.

PHP MEDICAL DIRECTOR

Allan J. Chernov, M.D., has been named medical director of Physicians Health Plan (PHP) of Minnesota. As PHP medical director, Chernov will serve as a medical consultant to PHP's health care provider network, for review of specific medical cases and claims issues, and for medical community relations. In addition, he will assist PHP's board of directors on issues relating to physician participation in PHP and the medical community in general.

Chernov previously was medical director and vice president for medical affairs for Bay Pacific Plan of San Francisco, an HMO with more than 100,000 members.

UNITED HEALTHCARE VICE PRESIDENT

Cynthia Polich, an expert on health care and geriatrics, joined United HealthCare Corp. as vice president on July 17.

NEW ONCOGENE

Scientists have discovered a new class of cancer-promoting genes (oncogenes)—a discovery that may lead to improved early-stage cancer detection. Ronald M. Evans, Ph.D., and colleagues at the Salk Institute for Biological Studies in La Jolla, California, have produced evidence that indicates the newly discovered oncogenes deactivate genes that otherwise would prevent cancer cell growth. The research results were published in the June 22 issue of the journal *Nature.*

CHILDREN'S MENTAL HEALTH

A study by the Institute of Medicine said in June that at least 7.5 million (12 percent) of Americans under 18 suffer from mental disturbances or disorders, and these disorders largely go untreated. The problem is worse among the poor, according to the study, which estimated that more than 20 percent of poor children suffer from such disorders.

CANCER RISK FOR PILL USERS

Women with a family history of breast cancer do not appear to elevate their risk of developing breast cancer by taking birth control pills, according to a recent study. Pamela P. Murray, a research associate at the Uniformed Services University of the Health Sciences, and colleagues studied women whose mothers, sisters, daughters, grandmothers, or aunts had had breast cancer, and said that neither the length of time on the pill nor the length of its use before pregnancy seemed to be correlated to a higher breast cancer risk.

THIRTYSOMETHING AND GIVING BIRTH

Babies born to women in their 30s now account for a third of all births in the country—up from one-fifth in 1970, according to a new Census Bureau report. In its report, "Fertility of American Women: June 1988," the bureau also said that the birth rate for women 30 to 34 years old was 82 births per 1,000 women, up from 56 per 1,000 in 1976; and the rate among women 35 to 39 years old was 34 per 1,000, up from 23 in 1976.

NO INSURANCE = LESS TREATMENT?

People without medical insurance not only have difficulty gaining access to medical services, but once hospitalized they also may receive less treatment than insured patients, according to a report in the June 22 *Journal of the American Medical Association.*

In a study of more than 65,000 patients at 52 hospitals in the Boston area during 1983, researchers found that uninsured patients, on average, were discharged earlier and underwent fewer procedures than Blue Cross patients. Their hospital stays were also shorter than those of Medicaid patients, though they underwent a similar number of procedures, reported the authors, Joel Weissman, Ph.D., and Arnold M. Epstein, M.D., M.A., of the Harvard School of Public Health, Boston.

After adjusting for types and overall severity of illness, they found that uninsured patients had, on average, 7 percent shorter stays (5.36 vs. 5.79 days) and underwent 7 percent fewer procedures (1.16 vs. 1.25) than Blue Cross patients, while Medicaid patients stayed 5.87 days on average.

MALPRACTICE WORRIES?

Seventy-six percent of physicians continue to provide services to high-risk patients despite the fear of malpractice lawsuits, according to a Gallup Organization survey reported in the June 23/30 issue of *American Medical News*.

Although 76 percent of the respondents said that in the 12 months prior to the survey they had not declined service to any patient due to fear of lawsuits, 14 percent said they had declined service 10 or fewer times, and 4 percent said they had declined service more than 10 times. Five percent said the question did not apply to them because they had not seen high-risk patients in the past 12 months.

Thirty-five percent of physicians surveyed said that, despite being qualified, they do not practice at least one area of medicine because of rising malpractice insurance costs. While 60 percent said that these costs have not caused them to limit practice, the Gallup survey, which was commissioned by the American Medical Association, found that 62 percent of general and family practice physicians said they limit their practice.

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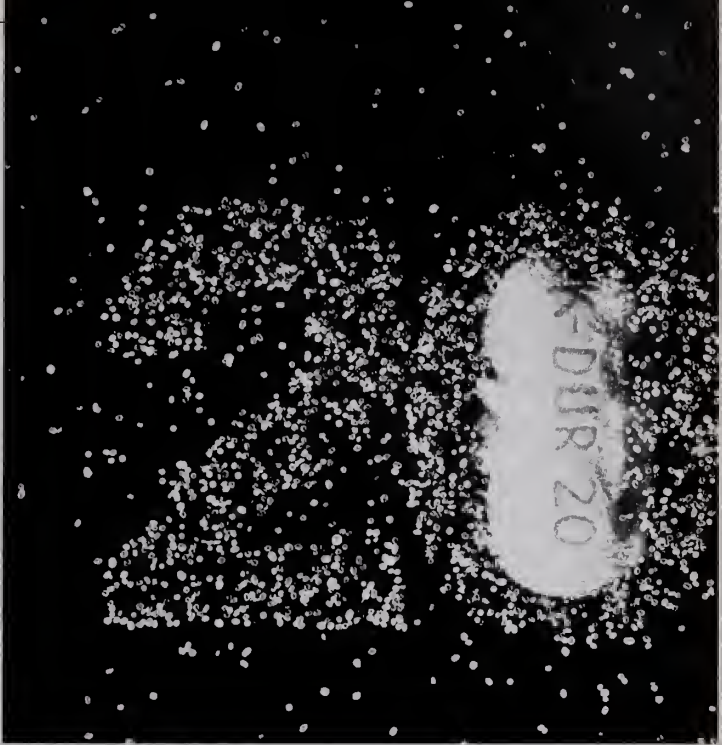

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1. For therapeutic use in patients with hypokalemia with or without metabolic alkalosis, in digitalis intoxication and in patients with hypokalemic familial periodic paralysis.
2. For the prevention of potassium depletion when the dietary intake is inadequate in the following conditions: Patients receiving digitalis and diuretics for congestive heart failure, hepatic cirrhosis with ascites, states of aldosterone excess with normal renal function, potassium-losing nephropathy, and with certain diarrheal states.
3. The use of potassium salts in patients receiving diuretics for uncomplicated essential hypertension is often unnecessary when such patients have a normal dietary pattern. Serum potassium should be checked periodically, however, and if hypokalemia occurs, dietary supplementation with potassium-containing foods may be adequate to control milder cases. In more severe cases supplementation with potassium salts may be indicated.

CONTRAINDICATIONS: Potassium supplements are contraindicated in patients with hyperkalemia since a further increase in serum potassium concentration in such patients can produce cardiac arrest. Hyperkalemia may complicate any of the following conditions: Chronic renal failure, systemic acidosis such as diabetic acidosis, acute dehydration, extensive tissue breakdown as in severe burns, adrenal insufficiency, or the administration of a potassium-sparing diuretic (e.g., spironolactone, triamterene).

Wax-matrix potassium chloride preparations have produced esophageal ulceration in certain cardiac patients with esophageal compression due to enlarged left atrium.

All solid dosage forms of potassium chloride supplements are contraindicated in any patient in whom there is cause for arrest or delay in tablet passage through the gastrointestinal tract. In these instances, potassium supplementation should be with a liquid preparation.

WARNINGS: Hyperkalemia—In patients with impaired mechanisms for excreting potassium, the administration of potassium salts can produce hyperkalemia and cardiac arrest. This occurs most commonly in patients given potassium by the intravenous route but may also occur in patients given potassium orally. Potentially fatal hyperkalemia can develop rapidly and be asymptomatic. The use of potassium salts in patients with chronic renal disease, or any other condition which impairs potassium excretion, requires particularly careful monitoring of the serum potassium concentration and appropriate dosage adjustment.

Interaction with Potassium Sparing Diuretics—Hypokalemia should not be treated by the concomitant administration of potassium salts and a potassium-sparing diuretic (e.g., spironolactone or triamterene) since the simultaneous administration of these agents can produce severe hyperkalemia.

Gastrointestinal Lesions—Potassium chloride tablets have produced stenotic and/or ulcerative lesions of the small bowel and deaths. These lesions are caused by a high localized concentration of potassium ion in the region of a rapidly dissolving tablet, which injures the bowel wall and thereby produces obstruction, hemorrhage or perforation.

K-DUR tablets contain micro-crystalloids which disperse upon disintegration of the tablet. These micro-crystalloids are formulated to provide a controlled release of potassium chloride. The dispersibility of the micro-crystalloids and the controlled release of ions from them are intended to minimize the possibility of a high local concentration near the gastrointestinal mucosa and the ability of the KCl to cause stenosis or ulceration. Other means of accomplishing this (e.g., incorporation of potassium chloride into a wax matrix) have reduced the frequency of such lesions to less than one per 100,000 patient years (compared to 40–50 per 100,000 patient years with enteric-coated potassium chloride) but have not eliminated them. The frequency of GI lesions with K-DUR tablets is, at present, unknown. K-DUR tablets should be discontinued immediately and the possibility of bowel obstruction or perforation considered if severe vomiting, abdominal pain, distention, or gastrointestinal bleeding occurs.

Metabolic Acidosis—Hypokalemia in patients with metabolic acidosis should be treated with an alkalinizing potassium salt such as potassium bicarbonate, potassium citrate, potassium acetate, or potassium gluconate.

PRECAUTIONS: The diagnosis of potassium depletion is ordinarily made by demonstrating hypokalemia in a patient with a clinical history suggesting some cause for potassium depletion. In interpreting the serum potassium level, the physician should bear in mind that acute alkalosis per se can produce hypokalemia in the absence of a deficit in total body potassium while acute acidosis per se can increase the serum potassium concentration into the normal range even in the presence of a reduced total body potassium. The treatment of potassium depletion, particularly in the presence of cardiac disease, renal disease, or acidosis requires careful attention to acid-base balance and appropriate monitoring of serum electrolytes, the electrocardiogram, and the clinical status of the patient.

Laboratory Tests: Regular serum potassium determinations are recommended. In addition, during the treatment of potassium depletion, careful attention should be paid to acid-base balance, other serum electrolyte levels, the electrocardiogram, and the clinical status of the patient, particularly in the presence of cardiac disease, renal disease, or acidosis.

Drug Interactions: Potassium-sparing diuretics; see **WARNINGS.**

Carcinogenesis, Mutagenesis, Impairment of Fertility: Long-term carcinogenicity studies in animals have not been performed

Pregnancy Category C: Animal reproduction studies have not been conducted with K-DUR. It is also not known whether K-DUR can cause fetal harm when administered to a pregnant woman or can affect reproduction capacity. K-DUR should be given to a pregnant woman only if clearly needed.

Nursing Mothers: The normal potassium ion content of human milk is about 13 mEq per liter. Since oral potassium becomes part of the body potassium pool, so long as body potassium is not excessive, the contribution of potassium chloride supplementation should have little or no effect on the level in human milk.

Pediatric Use: Safety and effectiveness in children have not been established.

ADVERSE REACTIONS: One of the most severe adverse effects is hyperkalemia (see **CONTRAINDICATIONS, WARNINGS,** and **OVERDOSAGE).** There have also been reports of upper and lower gastrointestinal conditions including obstruction, bleeding, ulceration, and perforation (see **CONTRAINDICATIONS** and **WARNINGS**); other factors known to be associated with such conditions were present in many of these patients.

The most common adverse reactions to oral potassium salts are nausea, vomiting, abdominal discomfort, and diarrhea. These symptoms are due to irritation of the gastrointestinal tract and are best managed by taking the dose with meals or reducing the dose

Skin rash has been reported rarely.

OVERDOSAGE: The administration of oral potassium salts to persons with normal excretory mechanisms for potassium rarely causes serious hyperkalemia. However, if excretory mechanisms are impaired or if potassium is administered too rapidly intravenously, potentially fatal hyperkalemia can result (see **CONTRAINDICATIONS** and **WARNINGS**). It is important to recognize that hyperkalemia is usually asymptomatic and may be manifested only by an increased serum potassium concentration and characteristic electrocardiographic changes (peaking of T-waves, loss of P-waves, depression of S-T segment, and prolongation of the QT-interval). Late manifestations include muscle-paralysis and cardiovascular collapse from cardiac arrest.

Treatment measures for hyperkalemia include the following:

1. Elimination of foods and medications containing potassium and of potassium-sparing diuretics.
2. Intravenous administration of 300 to 500 ml/hr of 10% dextrose solution containing 10–20 units of insulin per 1,000 ml.
3. Correction of acidosis, if present, with intravenous sodium bicarbonate.
4. Use of exchange resins, hemodialysis, or peritoneal dialysis.

In treating hyperkalemia, it should be recalled that in patients who have been stabilized on digitalis, too rapid a lowering of the serum potassium concentration can produce digitalis toxicity.

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August 18
"Advances in Anterior Segment Surgery and Research" by Richard Lindstrom, M.D., Course Chair Metropolitan-Mount Sinai Medical Center, Phillips Eye Institute Heilicher Auditorium – 8:00 a.m.

September 13
"Urinary Stones" by Ali Kahim, M.D., Health Central of Buffalo – 5:30 p.m.

September 13
Practice Management Seminar – "Physician Recruitment" – 6:00-8:00 p.m. – United Conference Center

September 14
"Depression" by Deane Manolis, M.D. – 12:00 noon, Sioux Valley Hospital, New Ulm, MN

September 26
"Abnormal Pap/Human Papilloma Virus" by John Savage, M.D. – River Falls Area Hospital – 7:30 a.m.

September 27
The Second Annual Physician Referral Program Conference – featuring David Pearce Snyder, Consulting Futurist – United Hospital – 5:30 p.m.

October 7
Second Annual Practice Opportunity Fair – Metropolitan-Mount Sinai Medical Center/Phillips Campus – 8:00 a.m.-2:00 p.m. – An opportunity for residents and clinical fellows to explore recruitment opportunities in the midwest, as well as receive educational information concerning the business aspects of medical practice.

For further information, contact the Continuing Medical Education office, Medical Affairs Division, Health One (612) 574-7895 or call toll-free 1-800-343-DOCS.

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AUGUST 1989

11-12 **Vascular Laser Surgery: A "Hands-On" Training Program** Abbott Northwestern Hospital; Abbott Northwestern Hospital, Minneapolis, Minnesota. CONTACT: Tim Schuh, CME Office, Abbott Northwestern Hospital, 800 East 28th Street, Minneapolis, Minnesota 55407; (612) 863-5461.

11-13 **Arrowhead Region Anesthesia Seminar** Miller Dwan Medical Center; Holiday Inn, Duluth, Minnesota. CONTACT: Jim Anderson, CRNA, Miller Dwan Medical Center, 502 East 2nd Street, Duluth, Minnesota 55805; (218) 720-1121.

25 **Second Annual Neurology Conference** Hennepin Faculty Associates; Hennepin County Medical Center, Minneapolis, Minnesota. CONTACT: Eugenia Kassar, Hennepin Faculty Associates, 701 Park Avenue, Suite 4220, Minneapolis, Minnesota 55415; (612) 347-2075.

25-26 **Clinical Applications of Musculoskeletal Allograft** St. Paul-Ramsey Medical Center; Holiday Inn, St. Paul Center, St. Paul, Minnesota. CONTACT: Bonnie Young, 640 Jackson Street, St. Paul, Minnesota 55101; (612) 221-3977.

Aug 28-Sep 1 **Team Management of Diabetes Mellitus** International Diabetes Center; International Diabetes Center, Park Nicollet Medical Foundation, Minneapolis, Minnesota. CONTACT: Cindy Poppitz, International Diabetes Center, 5000 West 39th Street, Minneapolis, Minnesota 55416; (612) 927-3393.

SEPTEMBER 1989

8-9 **Mayo Surgical Symposium** Mayo Clinic/Mayo Foundation; Mayo Clinic, Rochester, Minnesota. CONTACT: Rita Kunz, Mayo Clinic, Postgraduate Courses, 200 First Street SW, Rochester, Minnesota 55905; (507) 284-2509.

11-12 **7th Annual Occupational Health and Safety Institute** St. Paul-Ramsey Medical Center; St. Paul-Ramsey Medical Center, St. Paul, Minnesota. CONTACT: Bonnie Young, 640 Jackson Street, St. Paul, Minnesota 55101; (612) 221-3977.

11-13 **Partners in Managing Type II Diabetes** International Diabetes Center; International Diabetes Center, Park Nicollet Medical Foundation, Minneapolis, Minnesota. CONTACT: Cindy Poppitz, 5000 West 39th Street, Minneapolis, Minnesota 55416; (612) 927-3393.

15-16 **General Laser Surgery: A"Hands-On" Training Program** Abbott Northwestern Hospital; Abbott Northwestern Hospital, Minneapolis, Minnesota. CONTACT: Tim Schuh, CME Office, Abbott Northwestern Hospital, 800 East 28th Street, Minneapolis, Minnesota 55407; (612) 863-5461.

16 **Saturday Sports Medicine Symposium** Governor's Council on Physical Fitness and Sport; Lakeview Memorial Hospital, Stillwater, Minnesota. CONTACT: Robert Johnson, M.D., 5 West Lake Street, Minneapolis, Minnesota 55408; (612) 824-1647.

16-17 **Neurology** The Minnesota Society of Neurological Sciences; Holiday Inn Metrodome, Minneapolis, Minnesota. CONTACT: Bernd Scheithauer, M.D., Department of Pathology, Mayo Clinic, Rochester, Minnesota, 55905; (507) 285-6606.

18 **Team Management of Diabetes Mellitus** International Diabetes Center; International Diabetes Center, Park Nicollet Medical Foundation, Minneapolis, Minnesota. CONTACT: Cindy Poppitz, International Diabetes Center, 5000 West 39th Street, Minneapolis, Minnesota 55416; (612) 927-3393.

20-21 **19th Annual Mayo Clinic Pediatric Days** Mayo Clinic/Mayo Foundation; Mayo Clinic, Rochester, Minnesota. CONTACT: Rita Kunz, Mayo Clinic, 200 First Street SW, Rochester, Minnesota 55905; (507) 284-2509.

21-22 **12th Annual Trauma and Critical Care Seminar** Hennepin Faculty Associates; Hennepin County Medical Center, Minneapolis, Minnesota. CONTACT: Eugenia Kassar, Hennepin Faculty Associates, 701 Park Avenue, Suite 4220, Minneapolis, Minnesota 55415; (612) 347-2075.

22 **Northwestern Pediatric Society Annual Meeting** Northwestern Pediatric Society; Rochester, Minnesota. CONTACT: John Balfanz, M.D., 2333 North Smith Avenue, St. Paul, Minnesota 55012; (612) 227-7806.

22 **Women in Transition** St. Paul-Ramsey Medical Center; Earle Brown Center, St. Paul, Minnesota. CONTACT: Bonnie Young, 640 Jackson Street, St. Paul, Minnesota 55101; (612) 221-3977.

QUALITY CONTROL.

Four generations ago, in 1847, the AMA was founded "to promote the art and science of medicine and the betterment of the public health" by advancing the *quality* of medical care. And although this youngster doesn't know it, her future is brighter and her life expectancy is longer partly because of our dedicated efforts.

The factors influencing the quality of medical care today are more complex than they were in 1847. There are questions of evolving technologies, new delivery systems, policy debates, cost containment and more—each needing to be weighed to determine what constitutes the best quality care for individual patients.

But at the AMA, we still believe only physicians can provide the answers. That's why we continue to lead the medical community and design programs to inform, educate and monitor *ourselves*. And that's why we've recently established the AMA Office of Quality Assurance.

But our quality assurance efforts extend even further still. For example, to help physicians evaluate drugs, devices, and procedures, there's DATTA—the Diagnostic and Therapeutic Technology Assessment program.

These are two of the many activities at the AMA to improve quality health care. Because at the AMA, we're interested not only in the quality of medicine, but the quality of life.

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In most cases, medical association dues may be deductible as professional or business expenses.
Dues and other contributions to the AMA are not deductible as charitable contributions for Federal income tax purposes.

22 **Current Concepts of Cardiology** Abbott Northwestern Hospital; Abbott Northwestern Hospital, Minneapolis, Minnesota. CONTACT: Education Services, Suite 60, Minneapolis Heart Institute Foundation, 920 East 28th Street, Minneapolis, Minnesota 55407; (612) 863-3979.

22-24 **14th Annual Fall Continuing Education Seminar** Minnesota Academy of Physician Assistants; Holiday Inn, Detroit Lakes, Minnesota. CONTACT: John O'Brien, P.A.-C., 2103 Cohansey Boulevard, Roseville, Minnesota 55113; (612) 627-4253.

23 **Minnesota Radiological Society Annual Meeting** Minnesota Radiological Society; Hotel Sofitel, Bloomington, Minnesota. CONTACT: Deborah Day, M.D., University of Minnesota Hospital, Department of Radiology, Box 292, Harvard at East River Road, Minneapolis, Minnesota 55455; (612) 626-6413.

29 **Duluth Clinic Oncology Conference** The Duluth Clinic/St. Mary's Medical Center; Fitger's Spirit of the North Theater, Duluth, Minnesota. CONTACT: James Brueggemann, M.D., 400 East Third Street, Duluth, Minnesota 55811; (218) 722-8364, Ext. 179.

29 **Chemical Exposures** St. Paul-Ramsey Medical Center; St. Paul-Ramsey Medical Center, St. Paul, Minnesota. CONTACT: Bonnie Young, 640 Jackson Street, St. Paul, Minnesota 55101; (612) 221-3977.

OCTOBER 1989

2-3 **Advanced Trauma Life Support** Hennepin Faculty Associates; Hennepin County Medical Center, Minneapolis, Minnesota. CONTACT: Eugenia Kassar, 701 Park Avenue, Suite 4220, Minneapolis, Minnesota 55415; (612) 347-2075.

Ramsey Clinic
Baldwin, Wisconsin

A branch of Ramsey Clinic of St. Paul, located in friendly Baldwin, Wisconsin on I-94 close to St. Paul, Minnesota (40 miles) has a need for two family practice physicians. You will join an established group in a new clinic building attached to an excellent hospital with three other family practitioners, an internist and a physician's assistant. Benefit from the support of a large multi-specialty group with a most liberal benefit program. I would like to tell you more about this attractive practice opportunity. Please contact: Milt Cornwall, M.D., 640 Jackson, St. Paul, MN 55102, (612) 221-1840 or (715) 386-2802.

Equal Opportunity Employer.

WILLMAR MEDICAL CENTER

Multi-specialty group of 75 physicians has practice opportunities in the following areas:

- DERMATOLOGY
- FAMILY PRACTICE
- INTERNAL MEDICINE
  - General Internist
  - Endocrinologist
  - Rheumatologist
- OBSTETRICS/GYNECOLOGY
- ORTHOPEDICS
- OTOLARYNGOLOGY
- PEDIATRICS
- PSYCHIATRY

Large referral area.
Unparalleled fringe benefit program.
Excellent quality of life in lake region of West Central Minnesota.

Affiliate Office Locations:
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Benson
Clara City
Litchfield
Marshall
Redwood Falls

Send curriculum vitae and references to:
Recruitment Committee
101 Willmar Avenue SW
Willmar, Minnesota 56201

Bemidji Clinic
MeritCare

25 physician multispecialty group located in northwestern Minnesota seeking BE/BC physicians:

Obstetrics/Gynecology
Ophthalmology
Otolaryngology
Pediatrics
Family Practice

College community of 15,000 located on lake, offers abundant recreational opportunities. First year salary guaranteed with excellent long term compensatory arrangements. For more information contact Robert C. Montgomery, M.D., Recruitment Chariman, 737 Broadway, Fargo, ND 58123.

Bemidji Clinic
MeritCare

BE/BC OB/GYN
BE/BC Internist
BE/BC Family Practice
General Surgeon

Progressive family practice group of 10 family physicians and one surgeon is seeking one BE/BC OB/GYN, one BE/BC internal medicine physician, and one BE/BC family practitioner. Excellent salary and benefits package leading to shareholder in corporation.

Contact:
Rum River Medical Associates, Ltd.
Malvena Lepler, Clinic Manager
612-389-3344
111 N. 7th Ave.
Princeton, MN 55371

WORTHINGTON
MEDICAL CENTER
PROFESSIONAL ASSOCIATION

The Worthington Medical Center is a 17 member multispecialty group practicing in Worthington and Jackson, Minnesota. We provide primary and secondary care for a large portion of Southwestern Minnesota and Northwestern Iowa. Practice opportunities exist for board certified/eligible physicians in both Worthington and Jackson.

Family Practice
Internal Medicine
Pediatrics
Psychiatry
Orthopedic Surgery

Liberal vacation and meeting time, standard benefits package, and above average salary leading to shareholder status in the corporation with minimum buy-in.

For more information contact:
John Sieve, Administrator
Worthington Medical Center, P.A.
508 Tenth Street, P.O. Box 86
Worthington, MN 56187
Phone: 507-372-2921

MINNEAPOLIS

Opportunities for obstetricians at Riverside Medical Center

Option to work with midwives
and be active in a teaching program
for OB/GYN and Family Practice residents.

Competitive salary and benefit package.

Send curriculum vitae to:
Scott Lindblom, Sr. Physician Recruiter
600 West 98th Street, Suite 390
Bloomington, MN 55420

(612) 885-6225
(800) 842-6469

Riverside Medical Center
A joint venture of St. Mary's and Fairview Riverside hospitals

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Twenty-nine Physician Multispecialty Clinic located in desirable east-central Wisconsin location is seeking board-certified or board-qualified orthopedic surgeon to round out its services. Lab, X-ray, excellent hospital. Liberal guarantee and benefits. If interested, contact: D.F. Sweet, M.D., Fond du Lac Clinic, S.C., 80 Sheboygan Street, Fond du Lac, Wisconsin 54935. (R)

Family Physician/Emergency Room: Full-time salary working weekends, primarily emergency room. Flexibility available. Falls Medical Center, PA, 105 Shorewood Drive, International Falls, Minnesota 56649. Please contact: A. Johnson, M.D., or A. Marc Gorden, M.D., at (218) 283-9431 for more information. (R)

Canterbury Inn Bed & Breakfast: Rochester's unique alternative to hotel living. Victorian charm with modern comforts. Private baths, fireplace, central air conditioning, gourmet or special diet breakfast anytime, "tea-time" (wine, hors d'oeuvres, etc.) daily. Private, off-street parking, three blocks to Mayo Clinic and St. Mary's. A very special place for you, your colleagues, and your patients while in Rochester. $55/single, $65/double. 723 Second Street SW, Rochester, Minnesota 55902; (507) 289-5553. (R)

Family Physician wanted to join four physicians, one nurse practitioner, FP group practicing in two offices in Pine River and Pequot Lakes. Competitive salary. No OB. No HMOs. Rural area with outdoor recreational opportunities. Rotate hospital visits, emergency call; adequate free time. Call or write: C.R. Pelzl, M.D., Pine and Lakes Clinics, PO Box 88, Pine River, Minnesota 56474; (218) 587-4416. (R)

Physician: GP/FP/EM seeks locations to cover on weekends as locum tenens. Board-certified. FP. Lic. Minn. Write: Box 35132, Minneapolis, Minnesota 55436. (R)

Wausau Medical Center is seeking BE/BC individuals in the following specialties: cardiology, dermatology, family practice, infectious disease, obstetrics/gynecology, pediatrics, and rheumatology. Modern clinic facility located across the street from modern, 300-bed hospital. Full partnership in three years. Easy access to lakes, woods, and mountains. Write (including CV) to: D.K. Aughenbaugh, M.D., Medical Director, Wausau Medical Center, 2727 Plaza Drive, Wausau, Wisconsin 54401. (R)

Family Physician: Dynamic 13-physician, 3-office, single-specialty practice in northwest Minneapolis suburbs seeking additional associate, BE/BC; OB available. Competitive salary, full benefits, reasonable call and hospital rounds schedule. Contact: Dr. Ken Kephart, Northwest Family Physicians; (612) 476-6776. (R)

Urgent: FP/GP physicians needed for practice opportunities within ARIZONA and throughout the United States. Excellent group and solo opportunities available. For additional information, call (602) 990-8080; or send CV in confidence to: Mitchell & Associates, Inc., PO Box 1804, Scottsdale, Arizona 85252. (*R)

Johnson & Falls Search Associates represents new practice opportunities locally and nationally. Working exclusively in the area of physician search, we are committed to expanding your professional options while meeting our clients' needs. There are no fees to candidates. For a thorough, confidential search, send CV or call: Liz Johnson or Pat Falls, Johnson & Falls Search Associates, 34 Forest Dale Road, Minneapolis, Minnesota 55410; (612) 922-0237. (R)

Mankato Clinic, Ltd. is seeking BE/BC physicians in the following specialties: allergy, dermatology, invasive cardiology, oncology, urology, ophthalmology, and general internal medicine. The Mankato Clinic is a 38-doctor multispecialty group practice in south-central Minnesota with a trade area population of 150,000. Guaranteed salary first year, incentive thereafter with full range of benefits and liberal time off. For more information, call Roger Greenwald, Administrator, or Dr. B.C. McGregor, (507) 625-1811 or write 501 Holly Lane, Mankato, Minnesota 56001. (R)

Family Physician needed to join group of five family physicians in St. Peter, Minnesota, population 9,000, located one hour south of Minneapolis. Contact: Curt Stolee, M.D., or D.A. Nygard, Administrator, St. Peter Clinic, Ltd., 622 Sunrise Drive, St. Peter, Minnesota 56082; (507) 931-2110. (R)

Bemidji, Minnesota: Excellent opportunities for well-trained physicians. We are seeking board-certified/board-eligible physicians in orthopedic surgery, family practice, ophthalmology, pediatrics, and otolaryngology to join a young 24-physician multispecialty group practice located in northern Minnesota. Competitive salary guarantee plus incentive first year and excellent benefits. An excellent opportunity for a physician to enjoy practice in the center of hunting, fishing, and clear air. Please respond with CV to: C.C. Lowery, Administrator, Bemidji Clinic-MeritCare, 1233 34th Street NW, Bemidji, Minnesota 56601; (218) 751-1280. (R)

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- Adult Psychiatry
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For information about joining the Group Health, Inc. medical staff, call Judy Meath at **(612) 623-8444.**

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Family Physician to join medical staff of two family practitioners in well-established rural clinic in central Minnesota, along the southern shores of beautiful Mille Lacs Lake. Excellent subspecialty support, progressive community hospital, diverse patient population. Call collect, (612) 676-3661, or write c/o Nancy Swenson, Clinic Manager, Mille Lacs Family Health Center, PO Box 53, Isle, Minnesota 56342. (R)

Outstanding Opportunity for a BE/BC Family Physician to join a progressive medical community with eight physicians oriented to family practice. Details will be given by contacting: Dr. Tim Schmitt, Wadena Medical Center; (218) 631-1360; or Jim Lawson, Administrator, Tri-County Hospital, Wadena, Minnesota 56482; (218) 631-3510. (R)

Internist BE/BC: North Shore Internal Medicine, PC is seeking an energetic general internist to enjoy the benefits of a rapidly expanding practice. New office close to hospital. Michigan State Medical School Campus. Send resume to: 2420 First Avenue South, Escanaba, Michigan 49829; (906) 786-1563. (R)

BE/BC Psychiatrist, Orthopedic Surgeon: Excellent opportunity to join a well-established, progressive, 19-physician multispecialty group (9 FP, 4 IM, 2 OB/GYN, 1 Peds, 2 Surg) located in an economically sound community of 20,000 (drawing area of 30,000), 65 miles south of Twin Cities. Full membership after one year. One FP retiring in 1987. Competitive salary and fringe benefit package. Contact: Terry Tone, Clinic Manager, 134 Southview, Owatonna, Minnesota 55060; (507) 451-1120. (R)

Psychiatrist: An opening exists for a general psychiatrist with Hennepin Faculty Associates. Salary and benefits are generous. Requirements are board eligibility, Minnesota licensure, and potential for appointment in the Department of Psychiatry at the University of Minnesota. Position involves mainly inpatient and some outpatient care of acutely ill patients. This would be in association with over a dozen other full-time psychiatrists engaged in clinical care, teaching, research, and forensics. The University of Minnesota and Hennepin County Medical Center are equal opportunity educators and employers and specifically invite and encourage applications from women and minorities. Contact: William W. Jepson, M.D., Chief of Psychiatry, Hennepin County Medical Center, 701 Park Avenue South, Minneapolis, Minnesota 55415; (612) 347-5764. (R)

Family Practitioner to join a progressive 12-physician group practice. Rural college town 30 miles from St. Paul, Minnesota, with community hospital. Contact: R.M. Hammer, M.D., River Falls, Wisconsin 54022; (715) 425-6701 or (612) 436-8809. (*R)

Family Physician: Full-time or part-time positions staffing Convenience Care Medical Center. Competitive salary plus malpractice insurance. Call or write: Richard Gebhart, M.D., Grove Square Convenience Care, 13800 83rd Way, Maple Grove, Minnesota 55369; home (612) 420-6912, or work (612) 420-5822. 9-9/89

St. Cloud— Minnesota's fastest growing city—family practice physician, two pediatricians, two ob/gyns, BE/BC to join supportive primary care staff in a growing, successful, and innovative prepaid practice. New clinic facility. Full range of fringe benefits (competitive salary, liberal vacation, two weeks' education leave, retirement fund, etc.). Contact: Physician Services, Central Minnesota Group Health Plan, 1245 15th Street North, St. Cloud, Minnesota 56303; (612) 253-5220. An equal opportunity employer. (R)

Robert William James & Associates has been providing physician search services to client organizations since 1977. We are currently seeking physicians in virtually all specialty areas for health care clients throughout the country. Fees are assumed by our clients. All inquiries are handled in a professional and confidential manner. For further information, contact: John S. Shonyo, CPC, Physician Recruiter, Robert William James & Associates, 2360 North Broadway, Rochester, Minnesota 55904; (507) 285-9270. Offices located nationwide. (*R)

Physicians-All Specialties: Excellent opportunities nationwide, many in Minnesota. We specialize ONLY in physician placement! Contact: Earl Czech (612) 754-2556. North Central Staff Services, Inc., 11000 Central Avenue NE, #207, Minneapolis, Minnesota 55434. 6-9/89

Arizona-based Physician Recruitment firm has quality opportunities NATIONWIDE. Available positions in primary care and surgical specialities: OB/GYN, IM, ORTHOPEDICS, ENT. "Quality Physicians for Quality Clients since 1972." Call (602) 990-8080 or send CV to: Mitchell & Associates, Inc., PO Box 1804, Scottsdale, Arizona 85252. (*R)

Waseca, Minnesota: Family practice physician to join four family practitioners. Population 8,000. One hour south of Burnsville Center; lakes; industry. Salary negotiable. Clinic-adjacent hospital. Ample free time to enjoy family life. Contact: James W. Dey, M.D., or Ruth Hawker, 501 North State Street, Waseca, Minnesota 56093; (507) 835-3110. (R)

Internal Medicine: Wanted, locum tenens on intermittent or periodic basis; or associate wanted; or will sell. Phone (612) 252-7790. Top salary—you name it. (R)

Immediate Opening: Family practice physician BC/BE to replace retiring physician and join our team of caring professionals providing primary care medical services in a well-established facility. Competitive salary plus incentive pay, choice location, and excellent benefits (malpractice insurance included). Interested candidates should send CV to: Robbinsdale Clinic, 3819 West Broadway, Minneapolis, Minnesota 55422; (612) 533-2534. (R)

FP Needed to join four in growing practice in city of 40,000. We provide full spectrum of FP services. Opportunity for full partnership after one year. Contact: Tony Giefer, M.D., 1695 LorRay Drive, North Mankato, Minnesota 56001; (507) 387-8231. 9-11/89

Great Location! 1/2-acre corner lot with two-bedroom home. Located across from Unity Hospital complex. Zoned C3. $152,000. Additional property available. Call: Bonnie Ryhn at (612) 464-7070, ERA MUSKE CO. 4-8/89

Family Practice—Hospital-Sponsored Clinic Opportunity: Dynamic, growth-oriented hospital in beautiful north-central Wisconsin is seeking two family physicians for a new clinic facility currently being constructed. The administrative burdens of medical practice will be minimized in this hospital-managed clinic. The hospital has committed to an income and benefit package that is significantly higher than similar opportunities. Package includes base income, incentive bonus, malpractice, disability, signing bonus, and student loan reduction/forgiveness program. All relocation costs will be borne by the hospital. Please contact: Dan McCormick, President, Allen McCormick, France Place, Suite 920, 3601 Minnesota Drive, Bloomington, Minnesota 55435; (612) 835-5123. (R)

Family Physician, BC/BE wanted to join three board-certified MDs in well-established, expanding group practice. Enjoy a progressive, rural city within easy reach of St. Cloud and Minneapolis. Contact: Dr. Jim Mohs, Melrose Clinic, 603 West Main Street, Melrose, Minnesota 56352; office: (612) 256-4228, home: (612) 256-3488. (R)

Unsecured Signature Loans $5,000-$60,000 for Physicians: Use for any need including taxes, debts, investments, etc. No points or fees. Competitive rates. Level payments up to six years. Call toll free: 1-800-331-4952, MediVersal, Department 114. (R)

Exciting Pediatric Opportunity: Full or part time. East-metro practice offering stimulating combination of primary care, teaching, and consultative services. Excellent salary and benefits. Inquiries to Ruth at (612) 636-4122. (R)

New 3-4 Bedroom Luxury Cottage Fireplace, sleeps 6-8. On Big Spider Lake, Hayward, Wisconsin. For rent monthly, weekly, weekend. Call (507) 288-1600 or write 602 Colombia Court, Rochester, Minnesota 55904. 3-8/89

Mayo Clinic Department of Family Medicine is seeking a residency-trained, board-certified, experienced family physician for a full-time clinical position covering all aspects of family practice, including obstetrics. Medical school and family practice teaching opportunities are also included. Contact: Matthew J. Puffer, M.D., Department of Family Medicine, Mayo Clinic, Rochester, Minnesota 55905. An equal opportunity/affirmative action employer. 3-8/89

Pediatrician: Part-time position in Minneapolis available July of '89. Prorated salary, benefits, and call. Excellent opportunity for flexible lifestyle. Contact: Maureen Reed, M.D., Chief of Staff, ASPEN Medical Group, 1020 Bandana Boulevard West, Suite 100, St. Paul, Minnesota 55108; (612) 641-7178. *3-8/89

BC/BE Internist needed for full-time or part-time position in a progressive community clinic. Responsibilities include inpatient care. Competitive salary and benefits. Contact: Bruce Richardson, M.D., West Side Health Center (La Clinica), 153 Concord Street, St. Paul, Minnesota 55107; (612) 222-1816. 3-8/89

Family Physicians: Well-established suburban Minneapolis family practice group seeks associates PT/FT to staff day clinic. Excellent call schedule, salary, and fringe benefits. Also seeking locum tenens to staff PT/FT urgent care centers and/or day clinic. Contact: Administration, Family Physicians, P.A., (612) 435-4125 or send inquiries to PO Box 3046, Burnsville, Minnesota 55337. (*R)

Family Physician needed to join group of three full-time physicians in rapidly growing community health center. Must do obstetrics. Competitive salary and benefits. Contact: Craig Redfern, D.O., or Beverley Hawkins, Ph.D., Model Cities Health Center, 430 North Dale Street, St. Paul, Minnesota 55103; (612) 222-6029. (R)

Ob/Gyn, Internal Medicine, BE/CE position is available at the Fairmont Medical Clinic, P.A., in Fairmont, Minnesota. The clinic is a progressive 12-person multispecialty group in southern Minnesota. The clinic and adjoining hospital (74 beds) are currently under major expansion. Fairmont is a community of 12,000 (trade area of 70,000) built around a chain of five lakes. First-year salary, paid malpractice, and benefit package. Contact: Dennis Sternke, M.D., Fairmont Medical Clinic, P.A., PO Box 800, Fairmont, Minnesota 56031; (507) 238-4263. 3-8/89

Cardiologist—Minnesota: High-quality, excellent private practice opportunity with expanding cardiology depatment. Invasive capabilities, including PTCA. BC/BE. Excellent location. Confidentiality assured. Call or send CV to: Carol Westfall, Consultant, Cejka & Co., 222 South Central Avenue, Suite 400, St. Louis, Missouri 63105; 1-800-678-7858. 1-8/89

Internist/Family Practice: An opening exists for an individual with the medical department at Minnesota Mutual Life, a large national insurance company in the life and disability insurance field.

Requirements are board certification, Minnesota license, four years' experience involving cardiology preferred. The position involves advising the company in life and disability risk analysis, medical claim evaluation, education, and employee health. Minnesota Mutual Life is an equal opportunity employer. Contact: Gary Schwartz, CLU, Director of Human Resources Planning, Minnesota Mutual Life, 400 North Robert Street, St. Paul, Minnesota 55101-0298. 1-8/89

Fargo Clinic
MeritCare

250 physician multispecialty group is seeking BE/BC physicians in several specialties for practice in regional area throughout eastern North Dakota and western Minnesota and also within the Fargo-Moorhead community.

Fargo-Moorhead is a sophisticated metropolitan community of 130,000. There are three colleges and universities which along with a local symphony, opera company and community theatre offer a wide range of cultural and recreational opportunities.

The opportunities available are:

ANESTHESIOLOGY
CHILD NEUROLOGY
FAMILY PRACTICE
OPHTHALMOLOGY
OTOLARYNGOLOGY
RADIOLOGY-THERAPEUTIC & DIAGNOSTIC
REPRODUCTIVE ENDOCRINOLOGY
CARDIOLOGY
CHILD PSYCHIATRY
OB/GYN
ORTHOPEDICS
PEDIATRIC ORTHOPEDIC SURGERY

Send Curriculum vitae and references to Robert C. Montgomery, M.D., Chairman, Physician Recruitment, 737 Broadway, Fargo, ND 58123 or for more information call 1-800-437-4010.

Fargo Clinic
MeritCare

Fergus Falls Medical Group, P.A.

615 S. Mill, Fergus Falls, MN 56537 (218) 739-2221

Immediate Opportunities

- Family Practice
- Oncology
- ENT
- Psychiatry
- Urology

- 35 Physician Multi-Specialty Group
- Attached to Lake Region Hospital, 141 bed facility, designated as the Nation's only Rural Secondary Specialty Center
- West Central Minnesota Lakes Region, 1,000 lakes in county
- Population and Economic Growth
- 175 miles to Minneapolis, 65 miles to Fargo
- Ideal for Families

Please write or call: Lawrence F. Eisinger, M.D. or Jim Wilkus, Administrator, 615 S. Mill, Fergus Falls, MN 56537, (218) 739-2221 or 1-800-247-1066 (in Minnesota).

Minneapolis: BC/BE family practitioner or other specialty with emergency room experience sought for the urgent care department of a large multispecialty group in desirable Twin Cities location. Our medical clinic is a highly reputable, well-established clinic that has been in existence for over 38 years. Salary and benefits are highly competitive. Regular work week expectation without night call or hospital obligation. Send CV and letter of inquiry to: Patrick Moylan, Park Nicollet Medical Center, Minneapolis, Minnesota 55416. *1-8/89

General Surgeon, Pediatrician, Ob/Gyn, Psychiatrist, Family Practitioner: Growing 16-physician, multispecialty clinic in beautiful northwestern Wisconsin seeking BC/BE specialists. Attractive partnership opportunity after one year. Come grow with us! Contact: John T. Henningsen, M.D., Indianhead Medical Group, Ltd., 1020 Lakeshore Drive, Rice Lake, Wisconsin 54868; (715) 234-9031. 3-10/89

Internist: Ramsey Clinic, a 215-physician, multispecialty group practice located in St. Paul, Minnesota, has an immediate opening for a primary care internist at one of the suburban clinic locations. The chosen candidate will be joining a staff made up of two other internists, two family medicine physicians, and two pediatricians, as well as consultants representing other specialties and subspecialties. An opportunity exists for teaching on an inpatient service. Interested candidates should forward their curriculum vitae in confidence to: Karen R. Steiner, M.D., Lead Physician, Ramsey Clinic-Maplewood, 1774 Cope Avenue, Maplewood, Minnesota 55109. Equal opportunity employer. *1-8/89

Family Physician BC/BE needed to join three other FPs in progressive growing practice on Lake Pepin/Mississippi River in southeastern Minnesota. Excellent first-year salary/benefits in a beautiful community with multiple recreational opportunities. Contact: D. D. Pflaum, M.D., 303 South Washington, Lake City, Minnesota; (612) 345-3318. 6-1/90

Orthopaedic Conference: New Perspectives in Pediatric Orthopedics, An Update: Date: October 5-7, 1989. Location: Landmark Resort in Egg Harbor, Wisconsin. Speakers: Alan L. Breed, M.D., Madison, WI; Alvin H. Crawford, M.D., Cincinnati, OH; Paul Esposito, M.D., Omaha, NE; John J. Hugus, M.D., Marshfield, WI; Walter W. Huurman, M.D., Omaha, NE; F. Stig Jacobsen, M.D., Marshfield, WI; David C. Mann, M.D., Madison, WI; H. A. Peterson, M.D., Rochester, MN; George W. Simons, M.D., Milwaukee, WI; John G. Thometz, M.D., Milwaukee, WI; and Virginia Garnett-Wintersteen, M.D., LaCrosse, WI. Further information: Marshfield Clinic, Office of Medical Education, 1000 North Oak Avenue, Marshfield, Wisconsin 54449; (715) 387-5207. 1-8/89

Ob/Gyn (BC/BE) Needed to join dynamic HMO-based multispecialty group practice. University town of 55,000 near Minneapolis. Community and recreation outstanding. Competitive salary and fringe benefits. We take pride in our patient care. Contact: Stuart R. Lancer, M.D., Group Health Cooperative, 1030 Regis Court, Eau Claire, Wisconsin 54701; (715) 836-8552. *2-9/89

Wisconsin—Family Practitioner Needed by progressive and growing group practice in west-central Wisconsin city of 55,000. Ninety miles from Minneapolis/St. Paul. Primarily prepaid practice with large component FFS. Highly competitive salary with excellent fringe benefits. Practice high-quality care in a good recreational area. Send CV to: Stuart Lancer, M.D., 1030 Regis Court, Eau Claire, Wisconsin 54701; (715) 836-8552. *2-9/89

Family Practice Opportunity: Join established, busy group practice in modern building adjacent to 61-bed county hospital. Great opportunity in scenic community of 9,000 and area of 20,000. Modern, up-to-date hospital with wide range of services and community programs. Write or call: David Schweizer, M.D., 13th & South Main Street, Charles City, Iowa 50616; (515) 228-5151. 3-10/89

Pediatrician to join existing two-person practice at the 24-physician multispecialty Winona Clinic, Ltd., in Winona, Minnesota. Located in the beautiful Mississippi River Valley of southeast Minnesota. The community, with a 40,000 population trade area, is the host of three colleges and a diverse industrial base. Send CV to: J. B. Knuesel, Administrator, Winona Clinic, Ltd., 420 East Sarnia, Winona, Minnesota 55987. 3-10/89

Energetic Family Physician needed to join group of three FPs in Northfield. This college community (St. Olaf and Carleton colleges) is 45 minutes from the Twin Cities and Rochester and provides all cultural resources in a small-city setting. The hospital is newly remodeled and thriving. The clinic is new and independent. The physicians are young, share all call, and provide a full range of medical services with excellent subspecialty backup. Contact: K. Sansome, M.D., or D. Larson, M.D., 505 West Woodley, Northfield, Minnesota 55057; (507) 663-1261. 3-10/89

Family Practitioner: $70,000+ for qualified FP at Willmar Regional Treatment Center. Direct PT care plus leader of a treatment team. Paid malpractice, nearly four weeks' vacation, two weeks' CME, sick leave, health, life, dental insurance, deferred comp, limited call. Numerous outdoor recreation activities. Only 90 miles from Minneapolis/St. Paul, excellent schools. Moonlighting permitted. CV to: Larry Olson, M.D., Medical Director, WRTC, Box 1128, Willmar, Minnesota 56201; (612) 231-5100. EOE. 3-10/89

Aspen Medical Group: an independent, multispecialty group with eight clinics in the Minneapolis/St. Paul metropolitan area, seeks associates in family practice, internal medicine, pediatrics, obstetrics/gynecology, orthopedic surgery, and urgent care. Competitive earnings, excellent benefits, reasonable call, and clinic responsibilities. Reply to: Maureen Reed, M.D., Aspen Medical Group, 1020 Bandana Boulevard West, Suite 100, St. Paul, Minnesota 55108; (612) 641-7178. *3-10/89

Family Practice Opening: Join established family practice clinic near 32-bed hospital. Competitive salary and benefits. Medical support from seven major hospitals with consultation and educational services. Family-oriented, supportive community in scenic northeastern Iowa. Contact: Richard Phillips, Community Memorial Hospital, PO Box 519, Postville, Iowa 52162; (319) 864-7431. 2-9/89

Excellent Moonlighting Opportunities available at a variety of emergency departments in the Minnesota area. Independent contractors are offered a guaranteed rate of reimbursement, occurrence malpractice insurance coverage, and flexible scheduling. Interested? Contact: Anne Duke, Spectrum Emergency Care, PO Box 27352, St. Louis, Missouri 63141; 1-800-325-3982, ext. 3033. 3-10/89

Primary Care Physician Needed for Twin Cities occupational medicine/urgent care clinics. Please contact: Bob Weeks, (612) 221-2220. (R)

Family Practitioner: A quality, small hospital within 45 minutes of Minneapolis is offering a first-year minimum salary of $50,000, plus 37 percent of adjusted revenues, four weeks' vacation, two weeks' CME, life and disability insurance, a 401(K) pension plan, and malpractice insurance. Cross-coverage provided. Subspecialty backup available at a nearby sister facility. Call: Wanda Parker, toll-free, 1-800-221-4762, or collect, (212) 599-6200. *1-8/89

Practice For Sale—Wisconsin: Southwest Milwaukee suburb. Internal medicine or primary care. Located on main thoroughfare in hospital neighborhood. Reasonable terms. Financial assistance available. Inquire: PO Box 727, Elm Grove, Wisconsin 53122. (*R)

Virginia, Emergency Medicine: Minnesota graduate seeking board-certified emergency or family practice physician to join five-member emergency group in the central Shenandoah Valley of Virginia. Extensive emergency experience desirable for a 29,000 patient/year emergency department. Salary in the $90,000 to $100,000+ range for 35-hour week. Beautiful location, mild climate, progressive hospital, and no HMO medicine in the area. Call: Richard Evans or Stan Heatwole at (703) 887-2160. *3-9/89

Director of Medical Education The Children's Hospital, St. Paul, Minnesota: 116-bed children's hospital with active teaching program for residents in pediatrics and family practice and for medical students. Private hospital associated with pediatric teaching program of University of Minnesota. Strong general pediatric and subspecialty medical staff. Large level III NICU. Tertiary center for pediatrics, including intensive care. Contact: F. Blanton Bessinger, Jr., M.D., Vice President, Medical Affairs, The Children's Hospital, Inc., 345 North Smith Avenue, St. Paul, Minnesota 55101; (612) 220-6116. 2-8/89

General Internist: Marshfield Clinic, a multispecialty group practice with over 300 physicians, is seeking BC/BE general internists to join expanding regional centers. Practice opportunities range in size from multispecialty groups of 11 to 25. Positions available in three locations: one in northwestern Wisconsin, 90 miles from Minneapolis; one in north-central Wisconin in close proximity to the Upper Peninsula of Michigan and Lake Superior, and one in central Wisconsin within 35 miles of Marshfield. Full specialty consultation readily available. Positions offer strong economic stability combined with exceptional recreational, cultural, and educational opportunities. Starting salary up to $89,400 with salary in two years up to $113,100. Fringe-benefit package is outstanding. Send CV and references to: David L. Draves, Director, Regional Development, 1000 North Oak Avenue, Marshfield, Wisconsin 54449 or call collect (715) 387-5376. *1-8/89

Family Practice: Marshfield Clinic, a multispecialty group practice with over 300 physicians, is seeking BC/BE family practitioners to join expanding regional centers. Practice opportunities range in size from single-specialty groups of three to multispecialty groups of 25. Positions available in six locations: two in northwestern Wisconsin within 70 and 90 miles of Minneapolis; two in north-central Wisconsin within 80 and 90 miles of Lake Superior; and two in central Wisconsin within 25 and 35 miles of Marshfield. Full specialty consultation readily available. Positions offer strong economic stability combined with exceptional recreational, cultural, and educational opportunities. Starting salary up to $89,400 with salary in two years up to $113,100. Fringe-benefit package is outstanding. Send CV and references to: David L. Draves, Director, Regional Development, 1000 North Oak Avenue, Marshfield, Wisconsin 54449 or call collect (715) 387-5376. *1-8/89

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Occupational Health or Family Practitioner interested in working and developing an occupational health clinic with an emphasis on spinal disorders in the Twin Cities area. Please send CV to: Minnesota Medicine (835), 2221 University Avenue SE, Suite 400, Minneapolis, Minnesota 55414. 2-8/89

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Practice Opportunities available for internal medicine, occupational health, ob/gyn, and family practice physicians to join a 20-physician multispecialty primary care clinic with multiple sites in northern suburbs of Twin Cities. Practice is predominately fee-for-service. Main clinic is located adjacent to Unity Hospital. Competitive starting salary with generous fringe-benefit package. For additional information, contact: Dr. Kevin Bailey at (612) 786-2700 or send CV to Jeannine Schlottman, Administrator, 7676 Madison Street NE, Fridley, Minnesota 55432. 3-9/89

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SEPTEMBER 1989

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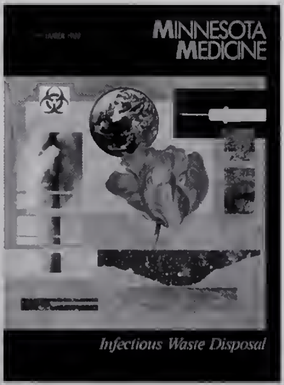

Cover Illustration

INFECTIOUS MEDICAL WASTE moved from the top of the public's agenda to the legislative docket following the wash-up of medical debris on our nation's beaches last summer. The result: a new Minnesota law that more clearly defines infectious waste and requires generators of infectious waste to come up with written plans describing how much they have and how they get rid of it (story page 510).

Cover and feature story art by Gail Swanlund of St. Paul.

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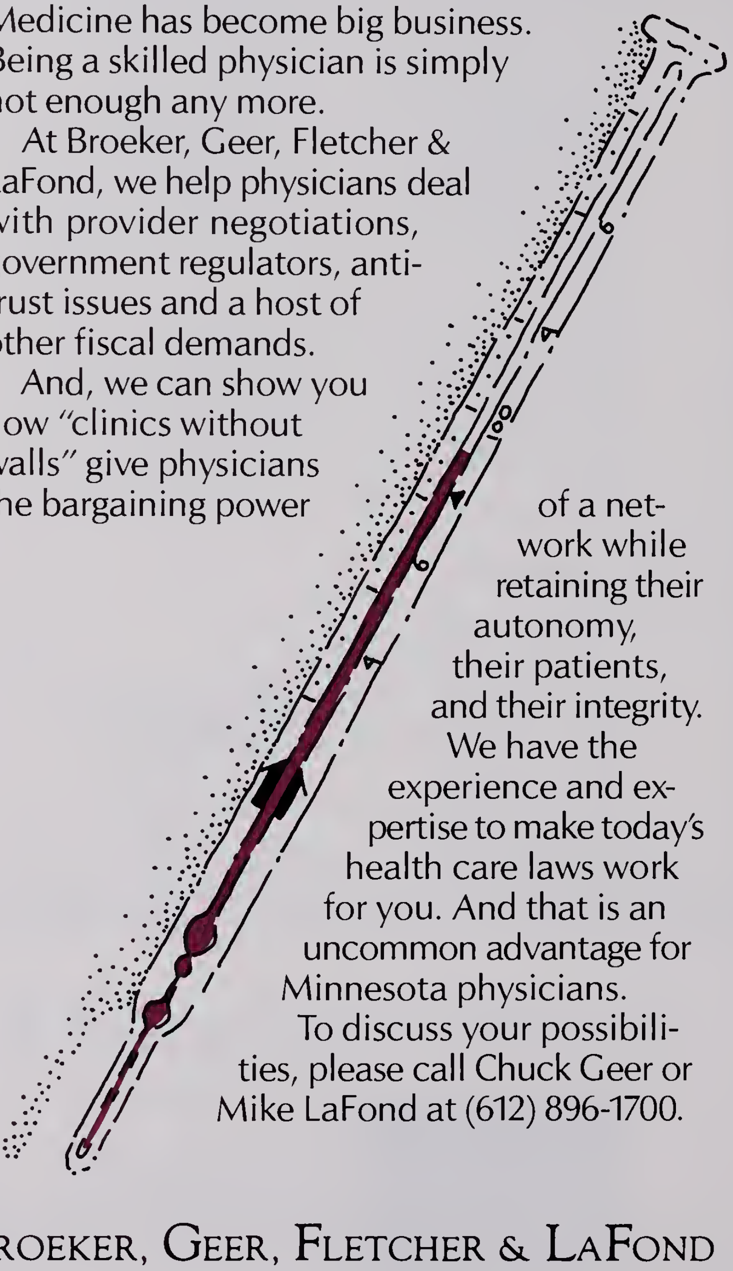

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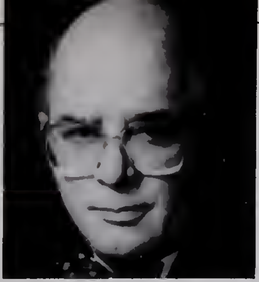

RICHARD L. REECE, M.D.

EDITOR'S NOTEBOOK

Another Letter From the East

> *"The true Massachusetts miracle is this: How did so many supposedly smart people in this supposedly smart state manage to make such a dumb mess of things? How does a state with the best 10-year employment record of the 50 states, a state with a high per capita income and a negligible welfare population, manage to reduce itself to mendicancy?"*
>
> *David B. Wilson*
> The Boston Globe
> *July 26, 1989*

Cape Cod
July 25, 1989

Dear Readers:

Today is the deadline for my *Minnesota Medicine* editorial. This morning, in an act of quiet desperation, I was scanning through a book by my favorite essayist, E. B. White, in search of an idea to break my writer's block. In one of his essays, I found this passage in a piece called "A Letter From the East":

"I'm behind on my correspondence, and this letter is overdue. Quite aside from the mess my desk is in, everything else here in the East is in a mess . . ."

E. B. White's words rang my bell. When the situation is in a mess in the East, the most natural way to remedy your tardiness is to write a letter.

A Year Ago

If you'll recall, a year ago I wrote to you about the Massachusetts medical mess after interviewing the editor of the *New England Journal of Medicine* and the president of the Massachusetts Medical Society. My editorial came shortly after the Massachusetts Medical Society had declared the commonwealth an unfit place to practice medicine, or words to that effect.

What a Difference a Year Makes

Well, all sorts of queer and unexpected events have taken place since my last report. A year ago, Dukakis was on the top of his game. His acceptance speech for the Democratic nomination was interrupted 101 times, and he was 18 points ahead in the polls.

Now, after his Bushwhacking, Dukakis has gone from acclaim to disdain, and the Massachusetts Miracle is the Massachusetts Morass. Dukakis' reputation has changed from managerial competence to political incompetence. The Massachusetts voters don't suffer losers gladly, and many feel Dukakis should resign.

This political drama has all the makings of a Greek tragedy—an expected fall of a proud local hero, the alcoholism of his wife, his mishandling of the state's financial crisis, his painful slowness in responding to his critics, his vanishing political credibility, and the hero's inability to confess any of his failings or even to talk to his political allies because of excessive pride, or hubris, to use the Greek term.

Dismal Events

In any case, dismal events swirl around people's heads here in dizzying numbers. These include:

► Dukakis' fall from political grace within his own party (the heavily Democratic legislature overrode a Dukakis veto 150-0 the other day);

► Dukakis' nearly complete political isolation (he and Democratic leaders refuse to talk to each other);

► Widespread public cynicism (Dukakis' negative poll ratings rose to 70 percent recently, and the feeling of discontentment and disillusionment are palpable on the streets);

► The sorry state of Massachusetts' state finances (the state bond rating has fallen to the second lowest in the U.S., barely ahead of Louisiana, the nation's economic basketcase);

► Massachusetts' 2½-year delay in paying its Medicaid bills and Dukakis' unwillingness to fund the

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state's universal health insurance law (hospitals, physicians, social welfare agencies, and welfare recipients are crying "Foul!").

► The threatened political collapse of Massachusetts' universal health insurance law (there's little money to implement it, and the legislature may delay its start until 1995);

► Last, but not least, the continuing exodus of Massachusetts physicians from office practices and to other states (putting numbers on the size of the exodus is a slippery business, since the state and the medical society disagree on how many physicians practice here, but guestimates on emigrating doctors for these last three years run from 10 to 20 percent for primary care physicians and up to 30 percent of neurosurgeons, orthopedic surgeons, and obstetricians).

On Old Cape Cod

Meanwhile on Cape Cod—the third-fastest growing population spot on the East Coast after Florida and New Hampshire—the number of practicing physicians drops monthly. Many citizens have complained to me that they cannot find primary care physicians. These physicians say they are simply too busy to accept new patients. So the patients increasingly rely on walk-in clinics and hospital emergency rooms, both of which are short of physicians. To make matters worse, everybody—hospitals, clinics, and doctors—is having a tough time recruiting new physicians and retaining old ones.

What's Wrong

What's wrong? Basically the causes are twofold: 1) a hostile state government and 2) an unfavorable economic environment for physicians.

► Massachusetts' legislature has, with Dukakis' blessings, prohibited balance billing, tied Medicare assignment to licensure, saddled doctors with retroactive malpractice premiums, and through the Board of Registration, has announced it has a yearly quota of physicians it wants to bring to disciplinary action. This kind of heavy-handed regulation has produced what *Medical Economics* has characterized as "The Great Doctor Revolt." The basis for the revolt, says *Medical Economics,* is physician discontentment: "What gnaws at office-based physicians is the feeling that they're besieged on all sides—by litigious patients, by employers trying to hold down costs, by consumer activists, and by a state government that listens to doctors last—and often acts, say doctors, as though they were the enemy."

► But I suspect what really gnaws at the vitals of many Massachusetts physicians is increasing economic uncertainty. Because of the inability to balance bill for Blue Cross, Mediplans, and Medicare, because of high malpractice rates and high office expenses, physicians here—particularly in "rural" areas like Cape Cod—are having a difficult time making an economic go of it. Add to these problems a high cost of living (third among the states), high cost of housing (an "average" house here runs $250,000 or more), and a stiff income tax (now 5.75 percent), and you have the ingredients of economic malaise.

The Massachusetts Strategy

What Massachusetts has tried to do is: 1) control health care inflation through regulating physician incomes, 2) control "quality" through a tough Board of Registration, and 3) assure universal coverage through its universal health insurance law. The state may be failing on all three counts and in the process is creating an adversarial professional-business climate that is driving physicians outside its borders.

No State Is an Island

What Massachusetts has failed to realize is that Massachusetts is not a medical island. It is part of the United States, and Massachusetts physicians have a choice—they can move to other states. In short, the upward and outward mobility of physicians is what makes it difficult for Massachusetts (or any other state) to impose its absolute will on physicians within its boundaries.

The Canadian Model

Frustration at imposing controls over U.S. physicians makes the Canadian approach more appealing to liberal theorists here. The Canadian government can impose central control over all capital expenditure in all regions and can control all physician fees in all provinces, partly by negotiating all physician fees and partly by banning all balance billing.

Massachusetts is about as close as one can get to the Canadian model in the United States. Perhaps if Massachusetts could close its borders, its tough regulatory approach would work. But that is impossible. Just this year, 50 physicians in Springfield moved across the state line to Connecticut's more congenial environment.

The Collapse of Dukakis' Dream

And now, even Dukakis' dream of a universal health coverage law seems threatened. Indeed, it is on the verge of political collapse. Here is *The Boston Globe's* sad commentary:

"What should be left is a legacy any government should be proud of—a law making Massachusetts the first state to guarantee access to health care for everyone . . .

But now the Medical Security Act, which extends health insurance to 600,000 people in Massachusetts who lack it, is under attack. Many legislators see it as a gift to the presidential campaign." ■

A Michelin's Guide to Medical Practice in Minnesota's Medical Marketplace

I usually supply the title for these interviews. But not this time. Interviewee Dr. James M. Barker suggested "A Michelin's Guide to Medical Practice." The title rang true, he said, because he sometimes looks upon himself as an observant tourist as he passes from one practice setting to the next. Besides, the Twin Cities' media had interviewed him on more than one occasion about life as a young doctor practicing in HMO-land, so he felt qualified to serve as a definitive guide.

In the course of the interview, it quickly became evident that Dr. Barker, an internist, feels compassionate about patients but dispassionate about how he is paid. He carries no ideological baggage about fee-for-service practice versus HMO practice. Practicing medicine, he said more than once, is a job, and you do the best you can to balance the trade-offs between the various practice styles and payment mechanisms.

Furthermore, he and other physicians of his generation have lived their entire practice lives under the aegis of managed care. It was common, he added, for him and others of his age to work for multiple organizations until they found the environment that suited them best.

This, then, is an interview about the "new realities" as seen by a "new physician," i.e., a physician who has spent his entire career finding his footing on the slippery slopes of managed care.

REECE: *Dr. Barker, you're 42 years old, and you've practiced in multiple settings in the Minnesota medical marketplace. These settings include private practice in St. Paul, a stint at Group Health during your residency, time spent at the Aspen Medical Group, which is closely affiliated with Share Health Plan, and most recently, as a general internist at Hennepin Faculty Associates. The year you started medical school, 1973, was the year the United States Congress passed the HMO Act. So you've spent your entire medical career in the managed care evolution. Share with us your feelings about the trade-offs between these various practice settings.*

BARKER: First of all, I'm not unique. I know a number of young physicians who have had multiple jobs within the same time span. But I have changed jobs more than most physicians. Some people have put me down because of my job changes, but it can take a few tries to get things right in today's practice environment. Medical practices aren't always what people who went into medicine thought they would be. By the time you hit middle age, you hope to be in a practice that will last until retirement.

REECE: *Observers of the medical market talk about "churning" among HMO patients, meaning how often patients switch HMOs. Are you saying that there is churning among physicians, too?*

BARKER: Yes. No doubt that's the case. When I was with the Aspen Medical Group, I was chairman of the Compensation Committee for about nine months. One reason we were considering revising our compensation schemes was that in the course of 18 months, 17 internists had left the group. Aspen is a group of about 100 doctors with a number of different specialties. We had a high turnover in a group that had once been stable. So there is a lot of churning within the doctor personnel pool.

REECE: *You've been in practice 12 years. Have your experiences met your expectations?*

BARKER: No. This is part of the disappointment or surprise doctors of my generation have encountered in their practices. A myth exists in medical training that things get better every year or after every stage. Granted, you earn more as you go along, and you spend your night on call at home more often than you do in training, but the notion that practice is going to be easier than medical school or train-

JAMES M. BARKER, M.D.

Barker *to page 537*

A Fee-for-service Advocate in a Managed Care Environment

Christopher Foley is a conservative young St. Paul internist. He believes Minnesota physicians have been unduly punished, economically and professionally, for being conservative in their practice styles and for cooperating with forces advocating a competitive revolution in health care delivery. The result of this unusual mix of conservatism and cooperation, he says, is that physicians have been co-opted by the managed care system and reduced to middlemen who must carry out the rationing policies of managers and politicians and share the bureaucratic burdens of administrating such a system.

Dr. Foley believes it is insufficient to let your beliefs degenerate into idle "whining" rhetoric. He says you must be "constructive" to be effective. For example, rather than complaining about HMOs, he has simply stopped dealing with them. Instead, he has strengthened his fee-for-service practice, and he and his partner have taken a series of steps to make their office more productive and efficient.

Finally, Foley has become a political activist within the context of organized medicine. He believes the public should know that overzealous managed care has its downsides—underpaid physicians, wasteful administrative overhead for doctors, deteriorating quality because of the twin demands of business and patient care, and a relentless "brain drain," as talented young Minnesota-trained physicians leave the state to go elsewhere.

REECE: *Dr. Foley, you're 39 years old. You practice internal medicine in St. Paul. Describe your practice for us.*

FOLEY: I'm in a practice with one partner. Our private practice is half hospital-based and half outpatient-based. Both of us have been in practice for about 10 to 12 years. We are not currently members of any prepaid group, although my partner has retained some former PHP patients. We have PPO-type contracts, but we are probably as fee-for-service oriented as you'll find among primary care doctors in the Twin Cities.

REECE: *But most doctors in the Twin Cities are supposed to have a heavy load of prepaid or capitated patients. Is it by intent that your patient mix is mostly fee-for-service?*

FOLEY: I think it's a result of our experience. After some terrible experiences with risk contracts, we decided that we would rather take our chances with market share than continue to work for ridiculous fees that would likely have put us out of business. So far, our assumptions have been correct, and we've had a little bit of luck. We both work very hard, and that's helped. The irony is that we're in the middle of perhaps the most intensely competitive marketplace in American medicine, and still we're surviving and thriving with a traditional fee-for-service approach.

REECE: *So it is possible to survive and do well in a mature managed care market?*

CHRISTOPHER M. FOLEY, M.D.

FOLEY: Yes. For us it's been possible by controlling our overhead, although we have made our mistakes.

REECE: *How have you made your office more efficient and cut your overhead?*

FOLEY: We have a very talented, versatile, and extremely efficient staff. All members can work at different positions. If one person becomes sick, someone else can fill in. We have a person who can work on accounts, another who can double as a nurse or a lab technician. We have done away with many of the little things doctors have enjoyed that raise overhead, such as extra personnel to act as medical assistants and nursing staff. We simply have fewer people.

Our space is efficiently laid out. We don't have a big lab; we have a small drawing lab with an efficient technologist and modern equipment. We get the best price we can for reference labs. We work close to a hospital, so we don't need our own radiology facil-

continued

ities. Basically, we don't do a lot of procedures on these premises. We try to do as many things as we can in the outpatient facilities the hospital has made available to us, which, of course, benefits the hospital, too.

REECE: *So you try to be as productive as you can?*

FOLEY: In the first place, we stagger our office hours. It's rare for the two of us to be here at the same time. We start office hours early in the morning, 8:00 sometimes. We work late in the evening. We have been able to avoid Saturday morning hours because of our downtown location. Overall, by taking a lot of the ornaments away from the medical practice, we manage to run a lean office with a high profile. Also, with just two doctors, we can spot trends extremely quickly and make adjustments accordingly.

REECE: *What do you mean by "trends"?*

FOLEY: Well, if we see that certain types of procedures or services are being scrutinized by a payer, or if utilization review appears to affect any particular part of our practice, we can adjust quickly. For example, when Medicare decided to pay only assignment rates for laboratory services, we were able to review all of our lab fees—how we were doing them, what our drawing fees were, what we were going to get paid, and what we weren't going to get paid—and decide which lab services were efficient to do on the premises and which were better to send out to a reference lab. We made those changes quickly. Changes in the Medicare law did not hurt us at all.

REECE: *What laboratory tests do you do in your office?*

FOLEY: Primarily hematology, urinalysis, protimes. We are set up to do cholesterol and electrolytes, and we are looking at a small analyzer that will expand some of the spot chemistries we can do. We do not do chemistry profiles, and we don't do any microbiology.

REECE: *Dr. Foley, you're known in some camps as an angry political activist on the side of fee-for-service medicine. What is your political agenda?*

FOLEY: I have been influenced by growing up in a traditional Republican family. I have always taken umbrage with the fact that during my adult lifetime there's been a net loss of businesses and jobs in Minnesota. State government is the biggest business in St. Paul. We are becoming the Scandinavia of the United States. Of course, there are merits to that. We treat people very well, for instance. But at times, we teeter on the edge of removing so many incentives to be productive that we enhance the bureaucracy and chase productive jobs out of the state.

"Minnesota physicians have been unduly criticized, discriminated against, and held hostage by forces that would not be used against any other group of workers."

The medical profession in Minnesota is exceptional when we compare ourselves with national standards. But a Minnesota physician, as a result of managed care and the overall economic profile, is not going to make as much money as he or she would make in Texas or North Carolina. That's just the way it is. I believe that Minnesota physicians have been discriminated against. We have been laboratory animals without informed consent.

REECE: *You're talking about the imposition of managed care constraints on Minnesota physicians?*

FOLEY: Yes. We practice in a state that has enjoyed among the highest medical standards anywhere in the world; yet we have been unduly criticized, discriminated against, and held hostage by forces that would not be used against any other group of workers. These forces have taken advantage of the fact that Minnesota physicians have been willing partners in efforts to promote quality, efficiency, and fairness. Someone's going to have to take a hard look at the fact that good physicians are leaving Minnesota. It's almost impossible to recruit physicians to this state.

REECE: *Why don't you leave? You're a young man. You recognize that Minnesota internists are in the lower 20 percentile in income nationally and that these internists are a discountable commodity in the market.*

FOLEY: I like it here, and I'd rather fight than run away. I've spent most of my life here, and I have married into a family that's very involved in Minnesota. It would not be good for my family to leave, so I don't care to leave. I'd rather stay and be a balancing force in what I think is an unbalanced political situation.

REECE: *But how does one go about being a balancing force in this medical marketplace?*

FOLEY: Well, I've noticed in the last couple years that Minnesota physicians are willing to listen to voices that in the past have been mere cries in the wilderness. I speak specifically of St. Paul urologist Dr. Robert Geist, who for years has raised a cry against forces that would manipulate the deliverance of health care services for economic reasons. I applaud the Minnesota Medical Association for passing resolutions at its annual meeting this year that in the past had just been laughed at or ignored.

REECE: *What were those resolutions?*

FOLEY: Some recognized that third-party payers can't expect physicians to supply administrative services in the form of data accumulation, preauthorization screenings, and utilization review procedures without impairing the physicians' productivity. Physicians function as an economic entity, and they have to keep working in order to pay their bills. When part of that work becomes administrative duties for the third-party payer, physicians either have to be reimbursed or decide where they're going to draw the line and refuse to do any more.

REECE: *One of the unrecognized realities of the Minnesota marketplace is that the managed care industry has imposed so much bureaucratic busywork that physicians' overhead in this state has soared. Physicians are caught in the squeeze between discounted fees and managed-care-imposed overhead.*

FOLEY: One reason complaints about overhead expense are unarticulated is that no physician has ever done a study to prove we work harder for our third-party payers than anybody else anywhere else. And one reason we haven't done so is because discretionary capital has eroded so fast that physicians haven't been able to fund such a study. When we are taken to task and asked to prove that physicians are doing all this additional administrative work for third-party payers, we can't supply any data because we haven't had the time and money to accumulate it.

REECE: *Just to illustrate the point, I was talking to an internist who moved from Minnesota to Montana, part of our ongoing brain drain. He said his overhead in the Twin Cities was 70 percent of revenues. When he moved to Montana, he was astonished to find his overhead dropped to 25 percent.*

"The primary care doctor has absorbed most of the economic shocks of managed care."

FOLEY: The composite index of rent and malpractice and personnel costs is high because Minnesota is a generous state when it comes to labor benefits and wage scales. When a composite is made of all those indices, plus the managed care burden, Minnesota proves to be an extremely expensive place to practice.

REECE: *The expense of doing business here may be why we have such a high turnover of primary care physicians in Minnesota. This turnover rate indicates economic distress as physicians seek out practices that assure more economic certainty.*

FOLEY: That's true. Internists are under a great deal of stress. The same stresses apply to pediatricians and to family practitioners, as well, because the primary care doctor has absorbed most of the economic shocks of managed care. But the problems of primary care doctors can be solved in some instances by increased productivity. It may be possible for a family practitioner to see 35 patients per day instead of 25 or 30, because many of the problems the primary care doctor sees require limited

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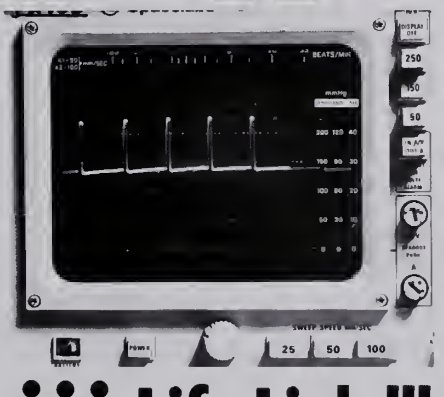

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service and little follow-up. Whereas, the intensity of services provided by internists is rising every year. Meanwhile, utilization review and quality assurance are demanding more of the internist's time. So, really, the internist's productivity is falling, while the demand to see more patients is growing.

REECE: *Coping with these pressures has convinced you that physicians should be allowed to charge for phone calls. After all, you spend a large segment of your time on the phone dealing with patients' problems.*

FOLEY: I do believe physicians should be allowed to charge for telephone consultations in a discretionary fashion. For one thing, we are just as liable for the clinical decisions we make by phone as we are for decisions we make during an office visit. Plus, we are required to document carefully any clinical decisions we make over the telephone. Like other professionals, physicians should be compensated for their time—whether it's time spent filling out a Metro Mobility consent form, performing a telephone consultation, doing a procedure, seeing a patient in the hospital, or seeing a patient in the office.

> **"Physicians have been and continue to be convenient scapegoats for society's economic shortcomings."**

REECE: *I was talking to an internist recently about the escalation of costs, which he said will never be solved until we rein in demand. He said demand is the big problem, that patients are pressuring internists and others by frequent visits and by demands for access to technology. Are patients more demanding these days?*

FOLEY: Certainly they are. But I'm not sure "demanding" is the right word. "Demanding" sounds perjorative, and patients don't deserve that. Patients are extremely well informed, and, at times, they are among my greatest sources of information.

However, improvements in technology and increasing patient sophistication demand more of the physician's time. If an internist is going to be the manager, if not the rationer, of care, he or she will have to spend more time and resources on careful clinical decision making. The demands of this new world reduce productivity; the new world requires a physician to see fewer patients per day.

REECE: *So what is the solution to all this?*

FOLEY: One of the solutions is more political bravado on the part of our government to take responsibility for rationing care. The physician cannot ration care with economic incentives or disincentives. True rationing must be done

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on a legislative level.

REECE: *In other words, politicians have to take the responsibility for rationing care?*

FOLEY: Yes. De facto rationing has to be done on a political level, and physicians can't continue to be the go-between. The physician is being placed in a very difficult position. More is being asked of us in terms of expertise and liability at a time when we are being told that we're going to get paid less to do the job. You just can't do that to people who have invested upwards of 15 years and $100,000 in preparing for the job.

REECE: *This corporate transformation of medicine has been compared to Kubler-Ross' grieving process, the spectrum from denial to depression, to agitation to anger, to acceptance and negotiation. Where would you say you are on that scale?*

FOLEY: I've gone through all the grieving processes, and I've managed to continue to function as a physician, citizen, and family person. I've gone through my dysfunctional stages, and I'd like to think I have developed a healthy and constructive approach by trying to direct the future of medicine in my own community.

I will not get stuck on the period of acceptance, because I just don't buy what's unfair. For example, one of our third-party payers is telling us that they are going to apply very strict preauthorization standards to physicians and possibly deny payment for medically unnecessary services.

But they're not going to tell the physicians on what criteria those denials will be based. That's a little bit like telling people that there will be three state troopers per mile of highway out there to get them for speeding, but not telling them what the speed limit is.

REECE: *So you do not accept arbitrary rules imposed from the outside without knowledge of why they're being imposed?*

FOLEY: That's right. No one should. Physicians have been and continue to be convenient scapegoats for society's economic shortcomings. But it's no longer acceptable to beat up on the medical profession.

REECE: *How does one get that message out to the public at large?*

FOLEY: The message can't be sent to the public by a group of well-paid professionals who are perceived to be whining. The message is only going to get to the public when physicians stop showing up for work, when physicians stop coming to Minnesota, or when good physicians leave Minnesota.

REECE: *Is that when quality begins to deteriorate?*

FOLEY: Right. In much the same way, Minnesota taxpayers are not going to cry uncle until enough industries have moved out of Minnesota to erode the economic base irreversibly. For years Minnesota has enjoyed the benefits of the timber, agriculture, and mining industries, but these industries have gradually receded into nonexistence. The Minnesota economy was basically buoyed by a group of large, high-technology computer makers. One by one they have elected to move out of Minnesota. Minnesota is not only not considered to be a center for computer technology, it's actually losing the brain trust that began here. I cite the recent exodus of the people who staffed ETA [Systems Inc.]. Minnesota medicine is a microcosm of that. We used to be one of the citadels of medicine, and don't look now, but if it weren't for Abbott Northwestern, we wouldn't even be considered a significant cardiac center. The message won't be received until we've realized that there are no longer any incentives for remaining here.

REECE: *If I may sum up, you are indicating that not only is there a hostile business climate but a hostile professional climate, as well.*

FOLEY: Absolutely. Unfortunately, those consequences may not be fully felt for another decade. But we shouldn't wait 10 years before trying to change it. ■

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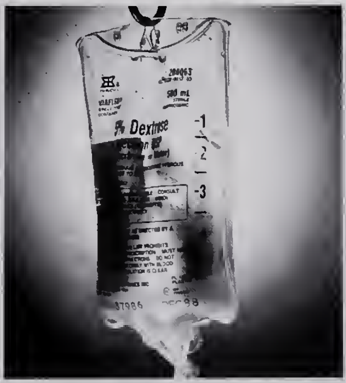

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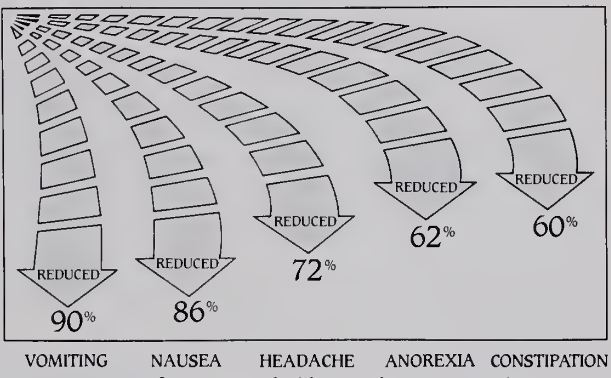

*Patients often presented with more than one somatic symptom.

Limbitrol®

Each tablet contains 5 mg chlordiazepoxide and 12.5 mg amitriptyline (as the hydrochloride salt) Ⓘⓥ

Limbitrol® DS

Each tablet contains 10 mg chlordiazepoxide and 25 mg amitriptyline (as the hydrochloride salt) Ⓘⓥ

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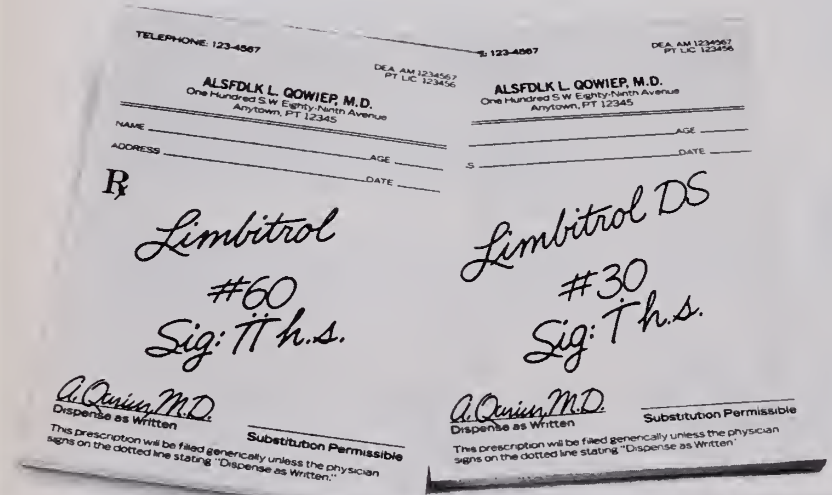
Please see summary of product information inside back cover.

In moderate depression and anxiety

- 74% of patients experienced improved sleep after the first *h.s.* dose[1]
- First-week improvement in somatic symptoms[1]
- 50% greater improvement with Limbitrol in the first week than with amitriptyline alone[2]



TELEPHONE: 123-4567

DEA AM 1234567
PT LIC 123456

ALSFDLK L. QOWIEP, M.D.
One Hundred S.W. Eighty-Ninth Avenue
Anytown, PT 12345

NAME

ADDRESS AGE

DATE

℞

Limbitrol
#60
Sig: ⅱ h.s.

A. Quinn, M.D.
Dispense as Written

Substitution Permissible

This prescription will be filled generically unless the physician signs on the dotted line stating "Dispense as Written."

: 123-4567

DEA AM 1234567
PT LIC 123456

ALSFDLK L. QOWIEP, M.D.
One Hundred S.W. Eighty-Ninth Avenue
Anytown, PT 12345

AGE

S DATE

Limbitrol DS
#30
Sig: ⅰ h.s.

A. Quinn, M.D.
Dispense as Written

Substitution Permissible

This prescription will be filled generically unless the physician signs on the dotted line stating "Dispense as Written."

Protect Your Prescribing Decision:
Specify "Do not substitute."

Limbitrol®

Each tablet contains 5 mg chlordiazepoxide and 12.5 mg amitriptyline (as the hydrochloride salt) Ⓘⓥ

Limbitrol® DS

Each tablet contains 10 mg chlordiazepoxide and 25 mg amitriptyline (as the hydrochloride salt) Ⓘⓥ

References: **1.** Data on file, Hoffmann-La Roche Inc., Nutley, NJ. **2.** Feighner VP, *et al: Psychopharmacology 61:*217-225, Mar 22, 1979.

Limbitrol® Ⓘⓥ
Tranquilizer—Antidepressant
Before prescribing, please consult complete product information, a summary of which follows:

Contraindications: Known hypersensitivity to benzodiazepines or tricyclic antidepressants; concomitant use with MAOIs or within 14 days of monoamine oxidase inhibitors (then initiate cautiously, gradually increasing dosage until optimal response is achieved); during acute recovery phase following myocardial infarction.

Warnings: Use with caution in patients with history of urinary retention or angle-closure glaucoma. Severe constipation may occur when used with anticholinergics. Closely supervise cardiovascular patients. Arrhythmias, sinus tachycardia, prolongation of conduction time, myocardial infarction and stroke reported with tricyclic antidepressants, especially in high doses. Caution patients about possible combined effects with alcohol and other CNS depressants and against hazardous occupations requiring complete mental alertness (*e.g.*, operating machinery, driving).

> ***Usage in Pregnancy:* Use of minor tranquilizers during the first trimester should almost always be avoided because of increased risk of congenital malformations. Consider possibility of pregnancy when instituting therapy.**

Withdrawal symptoms of the barbiturate type have occurred after discontinuation of benzodiazepines (see Drug Abuse and Dependence).

Precautions: Use cautiously in patients with a history of seizures, in hyperthyroid patients, those on thyroid medication, patients with impaired renal or hepatic function. Because of suicidal ideation in depressed patients, do not permit easy access to large quantities of drug. Periodic liver function tests and blood counts recommended during prolonged treatment. Amitriptyline may block action of guanethidine or similar antihypertensives. When tricyclic antidepressants are used concomitantly with cimetidine (Tagamet), clinically significant effects have been reported involving delayed elimination and increasing steady-state concentrations of the tricyclic drugs. Use of Limbitrol with other psychotropic drugs has not been evaluated; sedative effects may be additive. Discontinue several days before surgery. Limit concomitant administration of ECT to essential treatment. See Warnings for precautions about pregnancy. Should not be taken during the nursing period or by children under 12. In elderly and debilitated, limit to smallest effective dosage to preclude ataxia, oversedation, confusion or anticholinergic effects. Inform patients to consult physician before increasing dose or abruptly discontinuing this drug.

Adverse Reactions: Most frequent: drowsiness, dry mouth, constipation, blurred vision, dizziness, bloating. Less frequent: vivid dreams, impotence, tremor, confusion, nasal congestion. Rare: granulocytopenia, jaundice, hepatic dysfunction. Others: many symptoms associated with depression including anorexia, fatigue, weakness, restlessness, lethargy.
Adverse reactions not reported with Limbitrol but reported with one or both components or closely related drugs: *Cardiovascular:* Hypotension, hypertension, tachycardia, palpitations, myocardial infarction, arrhythmias, heart block, stroke. *Psychiatric:* Euphoria, apprehension, poor concentration, delusions, hallucinations, hypomania, increased or decreased libido. *Neurologic:* Incoordination, ataxia, numbness, tingling and paresthesias of the extremities, extrapyramidal symptoms, syncope, changes in EEG patterns. *Anticholinergic:* Disturbance of accommodation, paralytic ileus, urinary retention, dilatation of urinary tract. *Allergic:* Skin rash, urticaria, photosensitization, edema of face and tongue, pruritus. *Hematologic:* Bone marrow depression including agranulocytosis, eosinophilia, purpura, thrombocytopenia. *Gastrointestinal:* Nausea, epigastric distress, vomiting, anorexia, stomatitis, peculiar taste, diarrhea, black tongue. *Endocrine:* Testicular swelling, gynecomastia in the male, breast enlargement, galactorrhea and minor menstrual irregularities in the female, elevation and lowering of blood sugar levels, and syndrome of inappropriate ADH (antidiuretic hormone) secretion. *Other:* Headache, weight gain or loss, increased perspiration, urinary frequency, mydriasis, jaundice, alopecia, parotid swelling.

Drug Abuse and Dependence: Withdrawal symptoms similar to those noted with barbiturates and alcohol have occurred following abrupt discontinuance of chlordiazepoxide; more severe seen after excessive doses over extended periods; milder after taking continuously at therapeutic levels for several months. Withdrawal symptoms also reported with abrupt amitriptyline discontinuation. Therefore, after extended therapy, avoid abrupt discontinuation and taper dosage. Carefully supervise addiction-prone individuals because of predisposition to habituation and dependence.

Overdosage: Immediately hospitalize patient. Treat symptomatically and supportively. I.V. administration of 1 to 3 mg physostigmine salicylate may reverse symptoms of amitriptyline poisoning. See complete product information for manifestation and treatment.

How Supplied: *Double strength (DS) Tablets,* white, film-coated, each containing 10 mg chlordiazepoxide and 25 mg amitriptyline (as the hydrochloride salt), and *Tablets,* blue, film-coated, each containing 5 mg chlordiazepoxide and 12.5 mg amitriptyline (as the hydrochloride salt)—bottles of 100 and 500; Tel-E-Dose® packages of 100; Prescription Paks of 50.

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Private Quality Assurance Companies

Our Enemy from Within

Farrell S. Stiegler, M.D.

Physicians are not yet aware that the greatest imminent threat to the autonomy of their medical practices is not the government, the insurance companies, or the HMOs and PPOs, but the rapidly proliferating for-profit quality assurance companies. These companies contract with employers ostensibly to monitor the quality of their employees' health care. If you substitute the word "economy" for the word "quality" each time it appears in this article, it would be more accurate.

Quality assurance companies operate by previewing every hospital admission, every proposed surgical procedure, and every medical treatment plan for each of the company's employees. They assign an arbitrary length of stay for each diagnosis for every hospital admission. They review all diagnostic procedures for "medical necessity," both in the hospital and in the physician's office. They review all bills from the hospital. Physician and laboratory bills are reviewed for medical necessity and range of fees. They do these reviews for all employees and their covered family members without regard to the insurance company holding the health care contract for the company. The QA company for which I did part-time consulting calculated that it saved its clients $28 million in 1987. That money was diverted from patient care to administrative costs, QA company fees, and to some savings for the company.

That is how QA companies work. They hire large numbers of registered nurses (thereby contributing to the nursing shortage) who act as medical case reviewers or managed case consultants. Each time an employee is to be hospitalized or scheduled for surgery, the nurse reviewer calls the treating physician and from that doctor or office personnel determines the patient's diagnosis and treatment plan. The reviewer then compares this information against a set of QA company-developed criteria and approves or disapproves the hospital admission and the plan depending on whether or not it fits these criteria. If the plan is approved, the "case manager" will tell the patient and the doctor the number of days authorized for the patient's stay in the hospital.

"The QA companies, without any input from organized or academic medicine, are setting current standards for medical care."

There's the rub! The QA companies, without any input from organized or academic medicine, are setting current standards for medical care. They arbitrarily establish criteria that determine if and when a patient can be admitted to the hospital, what diagnostic studies can be done, what treatment the patient can receive, how long a patient can stay, and what the cost will be. They can decide if a surgical assistant is to be approved for a scheduled operation. They are responsible for denying a preoperative night in the hospital for many operations.

The QA companies also hire physician consultants to arbitrate cases in which the criteria fall outside the parameters used by the nurse reviewers. The physician reviewer generally will try to call the treating doctor directly and attempt to determine what extenuating circumstances have caused the case to fall outside these parameters—usually related to length of stay and fees. It then becomes the reviewing physician's responsibility to approve or disapprove of an extended length of stay and to negotiate (read: reduce) the fee.

The reviewing physicians are for the most part retired doctors, or doctors who are disillusioned with clinical practice for various reasons, or those who need to earn outside income and whose practices leave them the extra time. Most have received little, if any, quality assurance training. They tend to measure the cases referred to them against their own experience, practice, and prejudices. But, be aware of the fact that an association of QA physicians has been formed and has developed certification procedures. It has been granted representative status by the American Medical Association House of Delegates and will be petitioning for board recognition. It is one of the most rapidly growing specialties today and will increasingly intrude on your practice. It was estimated by this journal's editor, Dr. Richard Reece, in his own *Reece Report* (June/July 1988), that QA companies will proliferate in this country and Canada to become a $4 billion business by the early 1990s.

I was hired by a local QA company as a surgical consultant. I had no previous experience or training in quality assurance, nor did they give me any. During by brief stint, I found that most of the doctors I called were honest, hardworking, and sincere advocates for their patients' well-being. There was a rare "bad apple" who flagrantly attempted to milk the system and thereby justify the concept of quality assurance. For example, there was the surgeon who charged $3,000 for an emergency appendectomy because "he had to do it on Saturday afternoon, and the 20-year-old patient had 60 more years to live." Or the surgeon who charged $10,500 for a cholecystectomy and common bile duct exploration—$1,500 for the exploratory laparotomy, $1,500 for lysis of adhesions, $2,500 for the cholecystectomy, $3,500 for the CBDE, and $1,500 for use of the choledochoscope. It wasn't difficult to negotiate more reasonable fees in both cases.

Incidentally, the physician reviewers do have available to them computer-generated printouts of a range of fees for almost all CPT codes in every zip code zone in the country. They are instructed to negotiate all controversial fees to the 50th percentile for that area. Usually, no consideration is made for the difficulty of the procedure or for extenuating circumstances.

The April 7, 1989, issue of *American Medical News* reported that some members of Congress are considering legislation to develop national practice parameters. The AMA opposes this type of legislation and is working with the Rand Corporation to develop its own guidelines for practice. This project proposes to define appropriate criteria for selected medical diagnoses and surgical procedures and let medical specialty societies translate them into guidelines for practice. The practice guidelines will enable physicians to know if a contemplated procedure or treatment plan can be expected to be effective.

The American Medical and Peer Review Association has also asked Congress to develop a national strategy for formulating standards of practice with the flexibility to consider the unique characteristics of each patient, local medical facilities, and the social needs of chronically ill and indigent patients. This flexibility would allow deviation from the standards when medical judgment and local capabilities dictate an altered course.

The Minnesota Medical Association recently agreed to support the Minnesota Clinical Comparison and Assessment Project, set up to develop criteria for standards of care for 20 common diagnoses (*Minnesota Medicine*, July 1989). The project is expected to take three years. In my opinion, all these efforts will be too late. The QA companies already have a significant head start in developing their own criteria, and by much less qualified personnel. For example, I recently overheard the now ex-medical director of our QA company and its orthopedic consultant standing in the hall informally discussing low-back pain—which is a major problem for QA companies. During that discussion, they came to the conclusion that, henceforth, it would be company policy to approve the hospital admission of patients with low-back pain only by orthopedic surgeons!

"We do not have to accept the standards of care imposed on us by these QA companies."

What can physicians do about this dangerous threat? First and foremost, we must be certain that we practice good, ethical medicine commensurate with the standards of our community and at reasonable cost. Second, we must develop our own criteria for the standards of care in our communities and induce the QA companies to accept them. By doing so, we will become stronger advocates for our patients' needs. And third, we do not have to accept the standards of care imposed on us by these QA companies. The courts have ruled that we must be our patients' advocates under all circumstances; therefore, we need not accept the restrictions imposed by the QA companies if we feel that they jeopardize our patients' well-being.

We can do this by not talking to the QA personnel when they call. There are no laws or contracts that say we must. After all, they are imposing themselves between us and our patients without being invited to do so. By not talking to them, we can frustrate their review procedures. Their alternative is to notify the patient's employer that they have been unable to communicate with us. They then have the option of disapproving our care and recommending that no fee be paid, but they have no official authority to question our mode of care or deny our fee indefinitely. The issue eventually becomes a matter of negotiation between the physician and the employer, leaving the QA company out of the picture.

On the other hand, if you choose to talk to the QA people, be certain that you are on solid ground regarding medical necessity, quality of care, and your fees. If these are within the standards of your community, stick to your guns. Firmly and politely refuse to accept any modification of your treatment plan and your fee. Be a strong proponent of your patients' needs and rights, as well as your own. As quality assurance becomes a part of our everyday lives, as it surely will, we can only remember what Pogo so wisely said, "We have met the enemy, and they is us."

Farrell Stiegler is a general surgeon at the Family Medical Clinic in Minneapolis.

Can This Really Be Quality Control?

Mike Oppenheim, M.D.

Do you have a moment, Doctor? I'd like to discuss a patient you saw a few days ago."

My heart sank. The speaker was the quality control nurse who worked for our clinic's medical director. When she asked for a moment, you gave.

"You were treating this young man for acne," she continued. My heart rose again. What sort of catastrophe could pimples lead to? "According to my chart, he complained that the cream irritated his skin. So you changed to another."

"So?"

"As you know from the meeting last month, we're very concerned about documenting allergies. We noticed that you didn't enter the medication onto his allergy sheet and didn't mark it in red on the cover of the chart."

"Because his reaction wasn't an allergy. The cream is irritating; it bothers lots of patients."

"I just thought I'd bring it to your attention," she responded politely on her way out. I gnashed my teeth. I had broken my vow never to contradict the quality control nurse. She never argued back. She merely reported any uncooperative attitude to the director. He might remember at the time of my yearly salary review. He had certainly remembered in the past.

No sooner had the nurse left than a genuine quality control problem arose: A patient of a colleague, Dr. Brown, had accidentally been scheduled during Dr. Brown's lunch hour. I had agreed to see him, a 21-year-old college student with a cold. After an examination I gave the diagnosis. He disagreed.

"It's not a cold. It's bronchitis."

I agreed, explaining the virus was affecting his bronchi. "Dr. Brown says I have a tendency to bronchitis. He gives me tetracycline."

A glance at the chart confirmed this. I'm reluctant to change another physician's treatment plan, and giving antibiotics for colds is (in my experience) the standard of practice, but it sticks in my craw. So I delivered a sympathetic, tactful, and utterly futile explanation of viral infections and their treatment. He listened politely.

"If the medical profession won't solve its problems others will, and they'll do it badly!"

"I have a paper due in three days, and I can't afford to be sick. Since you won't give me anything, do you mind if I wait for Dr. Brown?"

I didn't mind. He sat in the hall for the next hour, glaring at me.

This is the second year of our quality control campaign. It has filled our mailboxes with memos, protocols, and surveys, packed charts with extra forms and colorful stickers, occupied parts of many of our weekly educational meetings and entire hours of several. Once we listened to a lawyer—a plaintiff's lawyer!—recount all the malpractice horrors he'd won.

These efforts have produced some "quality." But mostly they've produced extra charting and paperwork and an increase in the already high level of resentment pervasive among family physicians, internists, and others who occupy lowly salaried positions in large clinics.

Mind you, I love the concept of quality control. God knows, the medical profession needs it. My colleagues definitely need it. Do I need it? Well, no one's perfect. In any case, I don't mind other physicians questioning my decisions as long as they grant me the same privilege.

Medicine is fun, and one of its pleasures is arguing about how to do it right. I still remember the rough and tumble of training when we looked over each other's shoulders, eager to correct one another's shortcomings and show off our learning. Entering practice I assumed the same rules. The first time I happily pointed out an older physician's deficiency, I was startled at the icy response. Quickly I learned not to give advice unless asked. That's the general attitude, and we are now reaping its consequences.

If the medical profession won't solve its problems others will, and they'll do it badly! Remember Medicare, Medicaid, diagnosis-related groups, assignment, utilization review? All tiresome and inefficient, but all solutions to problems on which physicians dragged their feet. Rigorous quality control is coming, and we'll hate it, because those who impose it define it differently than we do.

When the government says "quality," it means "saving money." When consumers say "quality" they mean respectful treatment, maximum use of technology, and no mistakes. When administrators say "quality," they mean "not being sued."

These are mostly worthwhile goals, but to call them "quality" tortures the meaning. No matter. Those who make the rules define the problem.

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"Do you have a minute? I'd like to discuss a patient."

"Have a seat," I responded. Inwardly, of course, I turned to jelly. When our medical director appears at the door carrying a chart, the news is never good.

"You saw this young man for a sprained foot last week. According to the chart you didn't order an X-ray."

That was true. "It wasn't an impressive injury. I told him to come back if it wasn't better in a few days."

"So you did. And you documented it. Unfortunately, he didn't come back. He went to an emergency room last night, and they found a fractured metatarsal."

"Unless I X-ray everyone I'll miss one now and then. Missing a metatarsal fracture isn't serious."

"You're right. They didn't even cast it. But laymen think fractures are terribly urgent. This fellow's father is some important city official. I just spent half an hour with him, explaining that you didn't do anything wrong. I'm sure he understood," So I didn't do anything wrong. But why did I feel like I did something wrong?

"It doesn't rain but it pours!" he continued ruefully. "This morning I spent 20 minutes on the phone calming another patient. He stubbed his toe, and Dr. Fitzwater didn't X-ray it. And he went to an ER . . . "

I made sympathetic noises and felt better. He was holding a second chart, so Dr. Fitzwater was surely on his schedule. But what was the message? Our director did not make these visits without bringing one.

He continued: "There's no question of a settlement in these cases. It's not like Mr. Whitney . . ."

Mr. Whitney had jammed a finger. One of our physicians (not me!) had taken an X-ray and found nothing. Unfortunately, he didn't check the radiology report that arrived a few days later. A stoic, Mr. Whitney waited three months before returning to ask why he still couldn't bend his finger. Naturally, the corrective surgery was gratis, and he bought a vacation home with the settlement.

". . . Mostly it's a headache dealing with angry patients. They don't all listen to reason. Remember, X-rays are cheap." With a reassuring pat on the shoulder, he left.

"Rigorous quality control is coming, and we'll hate it, because those who impose it define it differently than we do."

"X-rays are cheap. . . " Was that a command to X-ray all injuries? Should I ask? Of course not; that wasn't the important question. Which was: Do I want to risk another patient giving my boss a hard time over a missed fracture, however trivial?

Now I practice defensive medicine—not against patients but against my boss. Let me hasten to add that he is a reasonable man, but like all bosses his mental processes are different from yours and mine. Here is how he deals with other genuine problems in quality control.

Problem: Illegible handwriting.

Of all our defects this is among the most serious and the most infuriating to other physicians. Ironically, it's the only one that's soluble. Stupid, careless, or impaired M.D.s may not straighten out, but all can be made to write neatly.

My solution: coercion. Give a direct order. Return illegible charts for rewriting. Force them to type or dictate or attend penmanship classes.

My boss's solution: the problem list. Located at the front of every chart is a sheet containing a column of boxes, one for each visit. If left blank, Medical Records returns the chart with a note. This works: physicians with incomplete records hear from the boss. Filling it in is simple since no entry is questioned.

During 15 years of practice I've heard plenty of sarcastic comments on unreadable charts, but never a direct attack on the problem. Even the most tyrannical medical director seems to consider this off-limits—like regulating his physician's political beliefs. So not only do our leaders have a peculiar view of what constitutes bad medicine, even when their view is accurate, they're helpless to correct it. Here's another illustration:

Problem: blunders.

Last year one of our physicians missed an appendicitis. The case was not difficult, and the physician was competent. He simply missed it. He didn't miss it when the patient returned two days later. The patient did well, but eventually his lawyer called. After negotiation, money changed hands. Naturally the physician involved felt bad, but it was our boss who handled the negotiation, and you can bet he felt just as bad. How can these mistakes be prevented?

My solution: I have none. A clinic can hire good physicians and encourage their education, but we'll miss one now and then.

My boss's solution: forms. The latest is for head injuries. Whenever such a patient arrives, our screening nurse inserts the appropriate two-page form in the chart. Densely printed, it contains a long list of questions and a complete neurological exam. All entries must be completed.

While noble in intent, you can guess the irritations this led to. Soon after its adoption, a patient arrived with the form in his chart. But there was no head injury; he'd been struck on the chin and complained of jaw pain. Surely I didn't have to perform a complete neurological exam for a TMJ problem? On the contrary, responded the screening nurse. The form was in place, and she had no authority to withdraw it. Removing it myself would have been a major felony. I persisted, so the nurse passed me on to the director of nursing who referred me to my boss. After consideration, he agreed that I could leave the form blank—except for an entry describing my reasons for doing so.

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I'm bored by laments that government control and bureaucratization are destroying medicine and harming patients. They're doing it in a terribly inefficient way that aggravates physicians to no end. But bureaucracies are inefficient—especially when trying to solve problems that should have been solved by someone else.

An example: In the past, with some admirable exceptions, the medical profession did a bad job of treating patients who couldn't pay. That was the impetus for Medicaid: an inefficient program that provides some genuine relief for the poor plus (unintentionally) a whopping dose of punishment to us for our lack of charity.

"Quality" is the hot issue today. Let's not fool ourselves; since everyone wants quality, that's what we'll get. What sort of quality is another matter. My cynical prediction is that we'll be forced to write long, long notes, follow needlessly detailed (but more or less correct) rules in evaluating patients, and submit to review by people with much less training than we have. I also predict that few of us will throw in the towel and take up real estate.

Mike Oppenheim writes and practices in Los Angeles.

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Infectious Waste Disposal

The Rules Just Got Tighter

Miriam K. Feldman

Every month, thousands of pounds of infectious medical waste are loaded onto trucks in the Twin Cities and hauled off to Fargo, North Dakota, to be burned. Because Minnesota produces more than area incinerators and landfills can handle, the state has become an exporter of medical waste.

Some of the waste, but by no means all of it, is deemed infectious because it is capable of transmitting disease or infection to individuals who improperly handle it. In the past year, medical waste in general and infectious waste in particular have been the focus of public debate. At the heart of the debate is the question of where to put all the waste once it is generated, and more specifically, how to dispose of the waste that could harm anyone who comes in contact with it. The growing number of incidents in which medical

waste has turned up in recreational areas and other public places and fear of AIDS have made infectious medical waste an issue. A growing awareness of the amount of waste we produce—medical and otherwise—has also pushed infectious waste to the top of the public's agenda.

The magnitude of the problem is demonstrated by the volume of medical waste hauled by a single company.

Browning-Ferris Industries, Inc. (BFI), a waste hauling company that handles half the market share of medical waste in the Twin Cities, gets rid of 265,000 pounds of medical waste (which includes infectious waste) locally each month and hauls another 14,000 pounds to Fargo.

Nationally, BFI exports more than 600,000 pounds of medical waste from the East Coast every month to various locations as far away as Pennsylvania, North Dakota, and Ohio. Medical waste from California is hauled off to Washington, Arizona, and Oklahoma.

The volume of medical waste is so high on the East Coast that it is beginning to turn up in the most unlikely places. This summer, a recreational diver found 20 blocks of concrete at the bottom of the Connecticut River in South Hadley, Massachusetts. Needles were poking through the concrete blocks, which on closer inspection were found to contain other kinds of medical waste, as well.

"The industry buzz word for infectious waste is 'emotional waste.' "

The Boston Globe reported the discovery July 6, calling it the most bizarre medical waste story of the year. It wasn't, of course, the first to make news. Medical waste made headlines in the summer of 1988, when syringes, blood vials, and other medical debris started washing up on beaches along the Atlantic, Gulf, and Great Lakes coasts. The culprits never were found, but theories abound as to who dumped the garbage. In one scenario, the waste haulers did it to arouse public emotions, which, in turn, would lead to legislation beneficial to business. Another theory blames the U.S. Navy's practice of ocean dumping combined with high winds and heavy rains that carried the debris back to shore. Yet another version blames a backed-up municipal sewage system.

No matter what the source of the garbage, the fact is that there is so much of it that it's showing up in places where we'd rather not see it. *The Boston Globe* story merely shows the lengths to which some people are willing to go to get rid of the stuff. And getting rid of it will become harder to do as the volume grows and regulations regarding its disposal are tightened.

In fact, the rules just got tighter in Minnesota, with the state legislature's passage of the 1989 Infectious Waste Control Act. Generators of infectious medical waste who may never have given much thought to their garbage now have to come up with written plans describing exactly how much they have and how they get rid of it.

The nation's hospitals generate about 3.2 billion tons of infectious and solid waste annually. That's 5,900 tons every day, or about 13 pounds per bed per day, according to a report on medical waste issued by the Rockefeller Institute of Government in June. An estimated 10 to 15 percent of that waste is deemed infectious.

For years, most hospitals have had infection control specialists to systematically manage waste, so the new rules may not do much to change the way they operate. Instead, it's the smaller clinics and medical practices that are most likely to feel the impact of the new legislation. Since these smaller operations don't generate much infectious waste, they probably haven't paid much attention to its disposal. Now, along with all other generators of medical waste, except households, they will have to.

The law, effective July 1, 1989, authorizes the Minnesota Department of Health and the Minnesota Pollution Control Agency (MPCA) to set standards for the generators and handlers of medical waste. Generators include physicians, dentists, veterinarians, morticians, and medical laboratories.

As of January 1, 1990, every generator of medical waste, from the smallest doctors' office in rural Minnesota to the largest hospital in the Twin Cities, will have to submit a waste management plan to the Department of Health (see "Minnesota's Infectious Waste Control Act," page 514). The written plans will describe the kind and volume of waste handled and where it goes.

If this sounds like more paperwork and red tape for physicians, consider this: The requirements in Minnesota's infectious waste control act are a breeze compared with what the federal government is asking medical waste generators to do.

Following the beach washups last summer, Congress quickly enacted the Medical Waste Tracking Act (MWTA), authorizing the Environmental Protection Agency to monitor medical waste disposal in a number of states. Minnesota was invited to participate in the two-year demonstration program, which mandates that infectious medical waste be followed from the time it is generated to the time it is destroyed. (All of the Great Lakes states opted out of the program. Only Connecticut, New Jersey, New York, Rhode Island, Louisiana, plus Puerto Rico and the District of Columbia are participating.) Much like the rules governing hazardous (radioactive and chemical) waste, the MWTA calls for written receipts, or manifests, to accompany the waste every time it changes hands along the way from cradle to grave.

"Many hospitals and clinics have been "red bagging" far more than necessary."

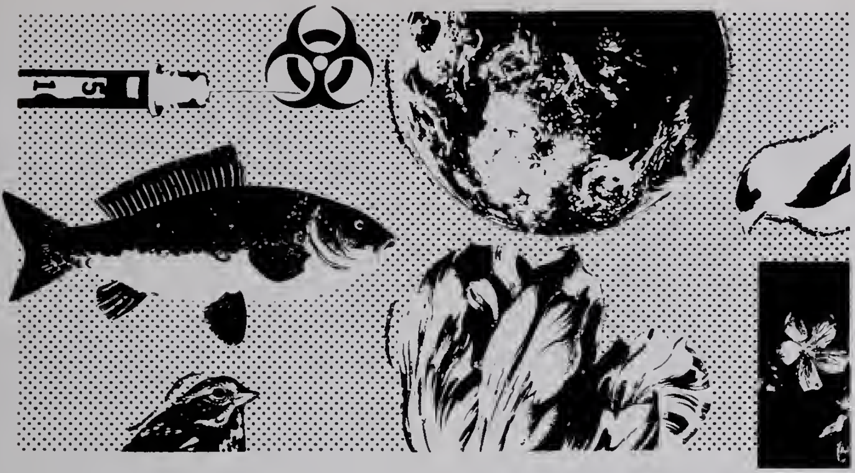
The bill had many detractors and few supporters. "It's a quick fix. It's a Band-Aid approach, but unfortunately the Band-Aid falls off," says Pamela Sulmer, who works in the state attorney general's office and recently did an in-depth study of Minnesota's infectious waste regulations. Sulmer and others say the MWTA was born out of hysteria, is burdensome, costly, and ignores the tough issues, like how to minimize the amount of garbage we produce. If stricter controls are in order, they prefer the ones in the new Minnesota legislation.

"The [Minnesota] bill is workable," says Dave Renner, a Minnesota Medical Association lobbyist who closely followed its creation. "We didn't want this bill to be an overreaction based on people's hysteria to medical waste," he said.

Although Minnesota was able to opt out of the federal waste tracking program, a number of observers say that mandatory federal legislation is inevitable. "Were I a betting person, I would put an awful lot of money on the fact that you are going to have federal regulations," J. David Lane told a Minnesota Safety Council audience this spring. That's because infectious waste is both a political and emotional issue, said Lane, who is vice president of Stericycle, Inc., a new company in suburban Chicago that sterilizes and recycles medical materials.

"Anything that's in place, don't get real comfortable with it, because chances are it will change in two years," said Jim Oukrop, administrator of safety management for Group Health, Inc. Oukrop and other proponents of Minnesota's legislation hope that in two years, when the waste tracking project ends, the federal government will look to Minnesota's waste control efforts for guidance. "Minnesota wants a system operating for a couple of years so when the feds look, we can say, 'A manifest system is not necessary. You can do it this way,' " Oukrop explained. He estimates that under a tracking system, Group Health would have to write as many as 3,500 manifests a year.

"There's nothing simple about garbage, let me tell you. There are so many emotions, and they determine the decisions we make. Hopefully we can make wise decisions," said Art Dunn, supervisor of the ground water and solid waste division of MPCA. Echoing Oukrop's hopes, Dunn says Minnesota wants to show the federal government that "there's another way to skin this cat."



Proponents of the state's waste control act are hailing it for reasons other than its relative simplicity. They also like it because it gives them a clear, concise definition of infectious medical waste, which the new law defines as any of the following that have not been decontaminated: laboratory waste, blood, regulated body fluids, research animal waste, and sharps, which are instruments capable of puncturing the skin, such as scalpels, needles, and broken pipettes. All of it now must be separated from general solid waste and disposed of properly. In most cases it must be burned, because infectious waste is not allowed in landfills unless it has been sterilized.

"We needed the legislation," says Jeanne Pfeiffer, nurse epidemiologist at Hennepin County Medical Center (HCMC). "We didn't have one definition," she said. The health department had one definition and the pollution control agency had another. As a result, many hospitals and clinics have been "red bagging" far more than necessary, she explained. (In the parlance of waste handlers, "red bagging" denotes the brightly colored bags that are used to alert handlers to the infectious nature of the contents.) Under the new legislation, HCMC may be able to reduce its weekly 4½-ton load of infectious waste by as much as a ton and a half, Pfeiffer estimates.

Group Health probably will reduce its infectious waste load under the new law, too, Oukrop said. "It's going to allow us to decrease the amount of infectious waste we generate because it gives us a better definition of infectious waste."

Health care institutions could save money by reducing the volume of red-bagged waste, because it is easier and cheaper to dispose of general solid waste. Group Health, for example, which does not have its own incinerator (unlike most hospitals), spent $5,200 a month the first five months of this year to have its infectious waste collected by a hauler. Oukrop estimates that the new rules could save the HMO at least $1,000 a month.

"The old regulations failed to present a clear, consistent, scientifically based definition of infectious waste," said Pamela Sulmer, who prepared the attorney general's *Report and Recommendations on the Regulation of Infectious Waste* last August. That document became the foundation for Minnesota's new infectious waste control act and has been widely circulated to other states interested in enacting medical waste legislation.

Sulmer is pleased, if not somewhat surprised, at the interest generated by the report and attributes its success to timing. The project began almost as an academic exercise, when Sulmer's supervisor asked her to look at the state's infectious waste regulations because a few other states were reviewing theirs. But nothing sensational was happening on the national front at the time, she said. That all changed, however, as her investigation progressed.

Just as the attorney general's office was convening a task force to review the state's regulations, NSP decided not to accept medical waste at its recently opened refuse-derived fuel plant in Newport, Minnesota. Shipments of garbage containing bloody bedding, tubing with needles, and vials and bags of blood were turning up on the dumping floor of the plant, which burns trash and turns it into electric power. Some of the shipments even included "what appeared to be human organs," said NSP lobbyist Bill Heaney.

The workers were complaining about it, says Patricia Pavlick, NSP's environmental activities coordinator for the Newport plant. They were concerned for their safety and wondered if they had to be taking in such waste, she said. "At that time, every time you turned on the news, there was something about AIDS," she said. For the safety of its workers, many of whom manually clean the equipment when it gets plugged with garbage, NSP decided not to accept any medical waste at the plant.

"The basis of our concern is employee safety," Heaney said. "You can't tell if it's safe when you look at a body part or blood."

It was within NSP's right to refuse the waste, and the action convinced the state attorney general's office that it was on the right track in trying to put together a coherent set of regulations governing infectious waste. As the issue was beginning to escalate locally, it was becoming a larger issue nationwide. As Sulmer says, "Nationally, garbage hit the fan."

Medical debris started washing up on the nation's beaches, and Congress stepped in with its medical waste legislation. Everyone was worried about the floating debris and its impact on the public health. The industry buzz word for infectious waste is "emotional waste," said James Sharp, M.D., a pathologist-turned-entrepreneur and partner in Stericycle, Inc. "It's all driven by AIDS," he said. "People are worried."

continued

In fact, AIDS is probably the least of the concerns surrounding medical waste, since the AIDS virus is fragile and does not survive for long outside the body. The hepatitis B virus is a much more serious threat to medical waste handlers, but it was the sight of bloody bandages and the specter of AIDS that made everyone take a closer look at what they were handling. "I don't think that infectious waste would be the issue it is today, if it weren't for AIDS," said Group Health's Oukrop.

The fear of AIDS may have triggered the public's nervous reaction to medical waste, but other forces were also working to put infectious waste control on the public agenda. The public's concern for the environment and the lack of landfill space were also forcing the issue.

In fact, it's difficult to talk about the proper handling and packaging of infectious waste without also talking about where it ends up.

Minnesota's Infectious Waste Control Act

Burn it or bury it. There are really only two ways to dispose of solid waste—infectious or otherwise. Minnesota's 1989 Infectious Waste Control Act, which went into effect July 1, is going to force generators of infectious and pathological waste to think a lot harder about what goes to the landfill and what goes up in smoke.

The new law defines infectious waste and mandates that it be segregated from other waste. Infectious waste must be properly labeled and packaged "in a manner that prevents release of the waste material," the law states.

The key to the new law is a management plan, something every generator of medical waste (with the exception of households) will have to submit to the Department of Health by January 1, 1990. All management plans are to contain the following information:

- the type of infectious and pathological waste that is generated or handled;
- the procedures that will be followed for the segregation, packaging, labeling, collection, storage, and transportation of infectious waste;
- the methods that will be used to decontaminate or dispose of infectious waste;
- the transporters and disposal facilities that will be used for the infectious waste;
- the steps that will be taken to minimize employer exposure to infectious waste throughout the disposal process;
- and the name of the individual responsible for management of the waste.

The health department expects to receive at least 6,000 management plans this January. Updated plans must be resubmitted every two years, along with a statement of the quantities of waste generated. Violators could face penalties of up to $25,000 and/or two years in prison.

"The key thing now is that each generator is going to have to write their own plan," said Darrell Anderson, section chief for occupational health at the health department. In the past, "the vast majority had not put a plan in writing," he said.

The health department is preparing a model management plan that will be distributed to all generators by early October, according to Pauline Bouchard, assistant director of the department's environmental health division. "We'll try to make it as user-friendly as possible," she said.

For further details on the 1989 Infectious Waste Control Act, contact the Minnesota Department of Health, Section of Occupational Health, (612) 623-5372.

Barred from landfills, nearly all infectious waste is burned in incinerators. Some infectious waste is autoclaved—sterilized with steam—and then sent to landfills. However, most landfill operators refuse to accept autoclaved waste because they say they can't tell the difference between it and unsterilized garbage.

All but 50 of Minnesota's 190 hospitals have their own incinerators. Sixty-seven percent of the nation's hospitals use on-site incinerators to dispose of their waste; another 15 percent autoclave it before sending it to a landfill; and the rest send it to off-site incinerators.

There are serious concerns, however, about the environmental impact of all this burning. Since very little testing has been done, nobody knows exactly what is coming out of hospital smokestacks, according to Anne Jackson, a staff engineer in the MPCA's division of air quality. But the fear is that they may be emitting too many acidic gases, particularly hydrochloric acid.

Burning has become a concern because most hospital incinerators are aging and are not equipped with newer pollution controls. What's more, they were built for a different kind of waste system. The old incinerators were built to burn pathological waste, which contains a lot of water and burns slowly. Today, medical waste contains about 20 percent plastic (five times more plastic than the municipal waste stream), and a lot more is from paper; both materials burn at a faster rate and could be emitting toxic gases into the air.

MPCA soon will have a better idea of what's going into the air because of a legislative appropriation to study smokestack emissions and ash. By June of 1990, MPCA plans to issue new regulations that will set stricter standards for the emissions of certain kinds of particulate matter and specify the kinds of pollution controls that should be on the smokestacks and the temperature at which different kinds of waste should be burned. Hospital incinerators that don't meet the standards within two years will be shut down.

Hospitals are very concerned about the pending regulations, said Vic Ellison, public affairs vice president of the Council of Hospital Corporations, a Minneapolis-based industry trade group. In fact, the council, on behalf of 25 Twin Cities hospitals, is exploring the possibility of building one state-of-the-art incinerator to handle the hospitals' infectious medical waste, Ellison said.

But it's not easy to build a new incinerator, as one waste hauler has found out. "The fact remains, if you don't have to have it in your neighborhood, nobody wants it," said Mike Ayers, divisional vice president for medical waste operations at Browning-Ferris. Ayers is all too familiar with the phenomenon known as NIMBY, short for "not in my backyard." BFI, which is the nation's largest biomedical waste transporter, treater, and disposer, has been trying to get permission to build a state-of-the-art incinerator in Minnesota for the past 18 months. But so far it's run into nothing but opposition.

Defining Medical Waste

Decontamination: rendering infectious waste safe for routine handling as a solid waste.

Generator: a person whose activities produce infectious waste. "Generator" does not include a person who produces sharps as a result of administering medication to oneself.

Infectious agent: an organism that is capable of producing infection or infectious disease in humans.

Infectious waste: Any of the following that have not been decontaminated—laboratory waste, blood, regulated body fluids, sharps, and research animal waste.

Laboratory waste: waste cultures and stocks of agents that are generated from a laboratory and are infectious to humans; discarded contaminated items used to inoculate, transfer, or otherwise manipulate cultures or stocks of agents that are infectious to humans; wastes from the production of biological agents that are infectious to humans; and discarded live or attenuated vaccines that are infectious to humans.

Pathological waste: human tissues and body parts removed accidentally or during surgery or autopsy intended for disposal. Pathological waste does not include teeth.

Regulated human body fluids: cerebrospinal, synovial, pleural, peritoneal, pericardial, and amniotic fluids that are in containers or that drip from body-fluid-soaked solid waste items.

Research animal waste: carcasses, body parts, and blood derived from animals, which, for the purpose of research, production of biologicals, or testing of pharmaceuticals, were exposed to agents that are infectious to humans.

Sharps: discarded items that can induce subdermal inoculation of infectious agents, including needles, scalpel blades, pipettes, and other items used for human or animal patient care, or by blood banks, laboratories, mortuaries, research facilities, and industrial operations; and discarded glass or rigid plastic vials containing infectious agents.

BFI first tried to get a permit to build an incinerator on some land it owns in Pine Bend, adjacent to Koch Refining. Because MPCA already was concerned about emissions from the Koch plant, it decided not to permit another discharge in the same area. Now BFI is trying to find another site, and when it does, Ayers says the new, state-of-the-art incinerator will be far superior to the aging incinerators now in use.

High-tech incinerators may be one answer to the problem of medical waste. Another may be new technologies, such as the one James Sharp is promoting—sterilizing used medical supplies with gamma radiation and then recycling them. Sharp sees the problem of medical waste as one of capacity, and the answer to that, he says, is recycling. He is especially critical of the federal attempt to track medical waste. "The assumption behind the medical waste tracking act is that the only problem with the stuff turning up in the water is that the haulers dumped it there. The real problem is capacity. Where do we take the waste?" he asked. "States don't want incinerators and they don't want landfills. If it can't go in a landfill or incinerator, where the hell are these guys going to put this stuff?"

"Medical waste is a microcosm of the whole issue of community solid waste," said Donald Vesley, professor and director of environmental health and safety at the University of Minnesota. Some societal changes will be necessary in the future to deal with the ever-increasing volume of waste, said Vesley, who advocates more recycling and controlled, monitored burning at a state-of-the-art incineration facility.

Unless we start to cope with the amount of waste we produce, Sharp predicts that "more and more will start washing up on the shores and turning up on the roadsides."

Miriam Feldman is a free-lance writer living in Minneapolis.

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Aspiration Pneumonitis
Prevention and Treatment

Nathan H. Jorgensen, M.D., Lt., M.C., U.S.N.; David E. Byer, M.D.; and Allan B. Gould, Jr., M.D.

Recognizing the factors that predispose patients to aspiration and identifying the patients who are susceptible to aspiration are the first steps in preventing aspiration pneumonitis. These steps should be followed by pharmacologic and physiologic management. Mechanical ventilatory support, bronchoscopy when indicated, and aggressive fluid management are essential when aspiration does occur.

In 475 B.C., Anacreon, a Greek poet, died after inhaling a grape seed. This is the first recorded case of aspiration followed by death. The great British pioneer in anesthesia, Sir James Simpson, described the death of a young girl during anesthesia, which he ascribed to aspiration. In that case, when the young patient, Hanna Greener, began sputtering while under chloroform anesthesia, she was given brandy, which she probably aspirated. She subsequently died.[1] Modern recognition of aspiration began in 1946 with the landmark paper by Dr. C. L. Mendelson. He reported 66 instances of aspiration in obstetric patients undergoing general anesthesia for vaginal deliveries.[2] He further documented the difference between acid and non-acid aspiration.

The Scope of the Problem

Aspiration in the perioperative or perianesthetic period continues to be a significant problem. This review deals primarily with aspiration in the perioperative setting; however, the principles discussed here apply to other critical-care settings. The true scope of the problem is difficult to ascertain. The reported incidence of silent regurgitation during general anesthesia ranges from 4% to 26%.[3,4] Ten percent to 20% of those who regurgitate also aspirate.[3-5] Mortality figures of those who have aspirated are also quite variable: 30% is thought by many to be a good estimate, but the range reported is 3% to 70%.[2-5] Interestingly, Mendelson reported the 3% figure. Many authors feel that aspiration is much more frequent than generally reported, because only the severe cases are reported.

Several factors influence the morbidity and mortality associated with aspiration. The four most important factors are the acidity of the aspirate (pH < 2.5), the volume of the aspirate (> 0.4 mL/kg), the presence of food particles in the aspirate, and a high bacterial count in the aspirate. Studies in both animals and humans have shown that if the aspirate has a pH below 2.5 to 1.8, the prognosis is significantly worse.[6-10] The prognosis also worsens when the volume of aspirate exceeds 0.4 mL/kg or 25 mL in adults. Higher volumes are tolerated as long as the pH is greater than 1.8 or 2.5.[9] Food particles increase the mortality and morbidity in both acid and non-acid aspiration.[10-14] Aspirates with large bacterial counts, such as those found in bowel obstruction, usually result in death.[14]

Who Is at Risk

Prevention is the most important means at our disposal to decrease the mortality and morbidity of aspiration pneumonitis. It is important to recognize who is at risk for aspiration during the perioperative period.

- The presence of ileus, bowel obstruction, gastric-outlet obstruction, or gastroparesis increases the volume of gastric contents, the bacterial count, and the gastric pressure. Regurgitation under such circumstances may be voluminous.
- Patients whose senses are obtunded are at risk for aspiration.
- Trauma patients and patients in acute pain who are scheduled for operation have decreased gastrointestinal (GI) motility and increased GI secretion, even if they are nil per os (NPO).[14,15]
- Patients receiving narcotics have decreased gastric emptying times.
- Aspiration is likely during pregnancy because pregnant women have increased intragastric pressure. They have increased gastrin production from the placenta and, thus, increased acidity and volume.[11,16] Decreased levels of the hormone motilin cause delayed gastric emptying, particularly during labor.[16]
- Patients with a hiatal hernia or achalasia are at risk for regurgitation and subsequent aspiration.[12]
- Patients with seizure disorders may aspirate during seizures.
- Ambulatory surgical patients may not have understood the importance of NPO orders, and, therefore, their NPO status must be verified.[13]
- Obese patients are at risk for

several reasons: They often have a hiatal hernia; they also have increased intragastric pressure and tend to have lower gastric pH and higher gastric volumes.[12]

► Finally, of course, anyone with a full stomach (NPO for less than 6 to 8 hours) is at risk for aspiration.[14,15]

Prevention

Having identified who is at risk, physicians can use several tactics to minimize the risk of aspiration or to prevent aspiration. Whenever possible, patients should have had NPO for a minimum of 6 hours before administration of all anesthetics.[17] Administration of antacids can raise the pH above 2.5. Particulate antacids do not improve morbidity despite an increase in pH because the particles, if aspirated, probably cause their own damage. A clear antacid such as the sodium citrate-citric acid mixture (Bicitra) is effective in raising gastric pH. This antacid is as benign as saline if it is aspirated. The usual dose is 30 mL.[18] Gastric pH increases in 15 to 20 minutes after administration and remains increased for 1 to 3 hours.

Histamine H2-receptor antagonists, including cimetidine, ranitidine, and famotidine, can increase the pH of gastric fluid.[19] Ranitidine has advantages over cimetidine; it has a longer duration of action and fewer adverse reactions, and it interferes less with the metabolism of other drugs.[20,21] Famotidine has only recently been studied as a premedication, but it seems to be at least as efficacious as ranitidine.[22] For ranitidine and famotidine, one oral dose (150 mg and 40 mg, respectively) the evening before and the same oral dose the morning prior to operation are appropriate.

Metoclopramide stimulates gastric emptying, increases esophageal sphincter pressure, and acts as an antiemetic, probably via dopaminergic antagonism both centrally and peripherally.[23] A 10-mg oral dose the night before and repeated early the morning of surgery is usually recommended.

Anticholinergics may reduce the acidity and volume of gastric contents; however, their efficacy is limited.[24]

Stomach decompression with a nasogastric (NG) tube is advisable in patients with a dilated stomach, i.e., bowel obstruction. Before induction of anesthesia, the NG tube should be suctioned to empty the stomach as much as possible. It is controversial whether the tube should be removed or remain in place during induction.

The choice of anesthetic technique is particularly important in patients at risk for aspiration. A regional anesthetic technique should be considered whenever the operative site lends itself to such a technique. Endotracheal intubation using an endotracheal tube with an inflatable cuff is a proven measure that should be used in all at-risk patients who require general anesthesia. However, even in the presence of a cuffed endotracheal tube, regurgitated gastric contents can still result in aspiration, albeit to a lesser degree. Patients should be awake during intubation if the airway may prove difficult to intubate or if they are hemodynamically unstable.[14] A rapid sequence induction and intubation is recommended for all other patients having a general anesthetic.[14] The rapid sequence induction includes reverse Trendelenberg position, denitrogenation of the lungs with 100% oxygen, a minimum of seven vital capacity breaths. Then cricoid pressure is held until endotracheal tube placement is confirmed, at least by breath sounds and ideally with measurement of end-tidal CO_2 (Figure).

After placement of cricoid pressure, thiopental or another rapid-acting induction agent is given in a dose to induce sleep, with immediate administration of succinylcholine. The airway is secured by endotracheal intubation and cuff inflation 30 to 60 seconds after the succinylcholine is given.[25] No attempt is made to ventilate the patient via mask throughout this procedure. The risks of this technique include: difficult intubation, cardiovascular depression, and aspiration despite attempts at prevention.

After the anesthetic is under way and before extubation, an orogastric or NG tube should be placed and the gastric contents suctioned to reduce the risk of aspiration postextubation.[26] At the end of the anesthetic, extubation should be undertaken only after the patient is awake and demonstrating protective airway reflexes.[27]

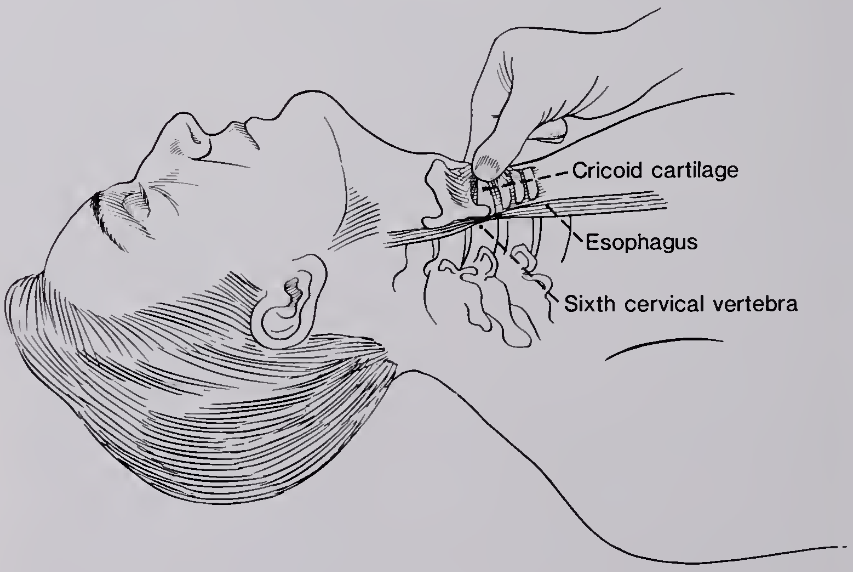

FIGURE - Application of cricoid pressure.

Treatment

Despite all efforts at prevention, aspiration during general anesthesia will still occasionally occur. Treatment of pulmonary aspiration of gastric contents is somewhat controversial. This review outlines approaches that are generally thought to be efficacious and mentions therapies that have been used but are not recommended.

Initially, the severity of the aspiration should be determined. As soon as regurgitation or aspiration is suspected, the patient should be rolled to either side, and the oropharynx should be suctioned. Next the airway should be examined for aspirate either via direct laryngoscopy if the patient is not intubated or by suctioning via the endotracheal tube if the patient is intubated. In either case, the trachea should be suctioned thoroughly. The pH of the aspirate fluid should be documented and the volume of the aspirate estimated. Most of the aspirate immediately disperses through the lungs; therefore, the suctioned aspirate will underestimate the true volume of aspirate.

The question of whether to proceed with surgery when this happens at the beginning of the procedure depends on the urgency of the surgery and the severity of the aspiration. Further evaluation of the severity of the aspiration can be documented by measurement of arterial blood gases and by a chest radiograph. The blood gases of severe aspiration usually show hypoxemia consistent with $\dot{V}/\dot{Q}$ mismatching and pulmonary shunting. A severe aspiration can show up early on radiographs as atelectasis and consolidation, most likely in the right lower lobe. Less severe aspiration may not show up on radiographs for up to 24 hours. At this point, the radiograph may reveal an interstitial infiltrate pattern. Small aspirations, which are the most common, usually require little or no therapy. What is meant by "small aspiration" is a clinical judgment. If the pH is above 2.5, if suctioning produces a negligible volume of aspirate, and initial blood gas values are essentially normal, then the aspiration likely is small.

When a severe aspiration is suspected, the mainstay of treatment is early ventilatory support. Approaches vary, but early institution of continuous positive airway pressure (CPAP) is probably indicated in alert patients.[28-30] The FIO$_2$ should be high initially, but it should be brought to below 0.3 as soon as possible, as guided by blood gas values. In cases of severe, large aspirates or obtunded patients, an endotracheal tube should be placed or should remain in place, and positive end-expiratory pressure (PEEP) should be applied, again decreasing the FIO$_2$ to as low as possible while maintaining an adequate PaO$_2$.[28,29] Bronchodilators can be helpful in patients with bronchospasm secondary to aspiration.[31] Fluid management is important. A patient with aspiration pneumonitis loses a lot of fluid into the lungs as pulmonary edema. These patients, therefore, may require placement of a pulmonary artery catheter to monitor the filling pressures and to maintain adequate intravascular volume.[32]

Bronchoscopy should not be routine but should be reserved for patients who have aspirated sufficient solid material to cause significant airway obstruction.[29,31,32] Pulmonary lavage is also rarely indicated except when inspissated material obstructs airways.[29,31,32] Even then, only small amounts of saline should be used to clear the airway of secretions or aspirated material.

Corticosteroids should not be used. Although it was theorized that they increase surfactant and thereby decrease damage, no studies have shown efficacy and, in fact, corticosteroid administration may prolong lung parenchymal healing.[33,34]

Prophylactic antibiotics should not be used routinely because they may alter the normal flora of the respiratory tract and render the patient susceptible to secondary infection with resistant organisms.[32] Antibiotic prophylaxis may be indicated when a feculent aspiration has occurred. Usually antibiotics should be reserved for treatment of infections documented by well-controlled smear and culture specimens.

Nathan Jorgensen is on assignment to the Department of Anesthesiology, Mayo Clinic and Mayo Foundation, Rochester, Minnesota. The views expressed in this paper are those of the author and do not reflect the official policy or positon of the Department of the Navy, Department of Defense, or the U.S. Government.

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References

1. Simpson JY: The alleged case of death from the action of chloroform. Lancet 1:175-176, 1848.
2. Mendelson CL: The aspiration of stomach contents into the lungs during obstetric anesthesia. Am J Obstet Gynecol 52:191-205, 1946.
3. Carlsson C, Islander G: Silent gastropharyngeal regurgitation during anesthesia. Anesth Analg 60:655-657, 1981.
4. Blitt CD, Gutman HL, Cohen DD, Weisman H, Dillon JB: "Silent" regurgitation and aspiration during general anesthesia. Anesth Analg 49:707-713, 1970.
5. Dines DE, Titus JL, Sessler AD: Aspiration pneumonitis. Mayo Clin Proc 45:347-360, 1970.
6. Roberts RB, Shirley MA: Reducing the risk of acid aspiration during cesarean section. Anesth Analg 53:859-868, 1974.
7. Teabeaut JR II: Aspiration of gastric contents: An experimental study. Am J Pathol 28:51-67, 1952.
8. James CF, Modell JH, Gibbs CP, Kuck EJ, Ruiz BC: Pulmonary aspiration—Effects of volume and pH in the rat. Anesth Analg 63:665-668, 1984.
9. Schwartz DJ, Wynne JW, Gibbs CP, Hood CI, Kuck EJ: The pulmonary consequences of aspiration of gastric contents at pH values greater than 2.5. Am Rev Respir Dis 121:119-126, 1980.

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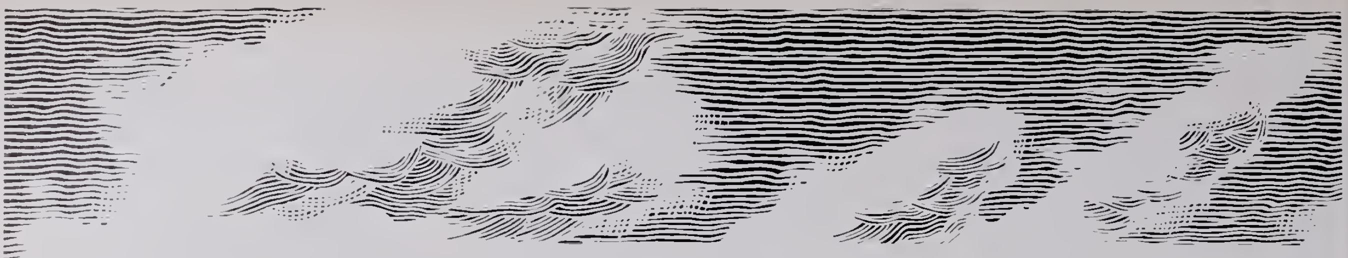

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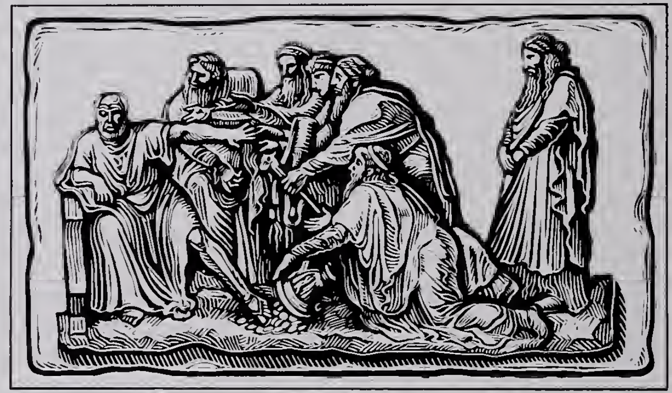

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The Adult Health Care Decisions Act

Information for Physicians and Their Patients

Prepared by the Minnesota Medical Association

The Adult Health Care Decisions Act, also known as the "Living Will" law, allows competent adults to state in a written declaration their preferences and instructions regarding medical care and treatment. A properly executed declaration will apply when the patient is in a terminal condition and is no longer able to participate in treatment decisions.

This article is intended to help physicians explain to their patients the advantages and limitations of a health care declaration or living will. It also reviews new physician obligations under the Adult Health Care Decisions Act, which went into effect August 1, 1989. Finally, it provides a sample form based on one developed by the Living Will Coalition. Because the new law uses the term "health care declaration," this article will use the same term. For practical purposes, however, the terms "health care declaration" and "living will" are interchangeable.

One of the physician's primary responsibilities, although not one set out in the law, is to assist patients with their questions. Many patients may not know the meaning of some of the medical terms in the form, such as the difference between "health care" and "life-sustaining medical treatment." It is important that physicians, or other knowledgeable professionals, discuss various kinds of treatment, such as cardiopulmonary resuscitation and long-term versus short-term mechanical ventilation. Patients may wish to provide either general or specific instructions in the declaration; the level of detail is left up to the declarant. As a physician, you can be of great assistance by assuring that your patients' statements are sufficiently clear and comprehensible.

What does this new law do?

Among the first questions asked is "What does this new law do?" Simply stated, it allows competent adults to state their preferences regarding the type, quantity, location, and other aspects of the health care they will receive when they are terminally ill and unable to make those decisions. The law focuses primarily on one area of medical practice: how health care decisions should be made by and for terminally ill patients. It defines a health care decision as "a decision to begin, continue, increase, limit, discontinue, or not begin any health care." And it restates the competent person's right to make health care decisions, extends this right to the written declaration, and places this right within the boundaries of reasonable medical practice.

Who can make a declaration?

While many think this law only applies to older people, any competent person age 18 or older may prepare a declaration.

What are its advantages?

The health care declaration outlined in the new law is a means for people to express their values regarding health care treatment, particularly at the end of life. The declaration, rather than being a substitute for direct communication with family, friends, and physician, should be used as the catalyst for discussion of this important topic.

The existing Minnesota Patients and Residents of Health Care Facilities Bill of Rights guarantees all patients the right to participate in their own medical decisions and to accept or refuse medical treatment. By preparing a health care declaration, patients can ensure that this right is protected when they are terminally ill and unable to communicate their wishes.

The benefits for patients are many. Perhaps the most important is the increased control terminally ill patients will have over their medical treatment when they are unable to make decisions for themselves. It is hoped that this ability will help relieve some patient concerns. It can also help provide direction and comfort to families. Often when a terminally ill person has left no indication of treatment preferences, the family will be at odds over the appropriate course and may feel burdened by having to make those choices. The patient's advance directives can help lessen this burden.

What are its limitations?

Physicians should have an understanding of the benefits and limitations of the advance declaration. Many patients believe that the living will can absolutely direct treatment. This is not the case and should be carefully explained to patients. The following points may be of assistance in discussions with patients:

► The declaration serves as the expression of the patient's desires to the physician who will be making medical decisions regarding treatment when the patient is ter-

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minally ill and unable to participate in decision making.

► The physician will interpret and implement the declaration at the time decisions must be made.

► The physician is bound at all times to follow reasonable medical practice.

► Support for the ethical principle of autonomy is implicit in the law; therefore, physicians must be prepared to give ethically and legally defensible arguments when attempting to act contrary to a patient's properly prepared health care declaration. Although reasonable medical practice must prevail, the MMA believes that the burden of proof is on the physician or other health care provider who seeks to override a patient's declaration. The medical and moral explanation for doing so should be well reasoned and well documented.

► The declaration must be a statement of the person's own values, beliefs, and wishes, and no one else's. The health care declaration is the forum for the advance expression of preferences; however, it cannot command actions and must serve as an element of the decision-making process.

What does "reasonable medical practice" include?

"Reasonable medical practice" requires that a physician apply his or her medical knowledge and skills to the benefit of a patient in accordance with the standard of care expected in the community. It includes providing comfort and alleviating pain.

Should all patients prepare health care declarations?

Not necessarily. No one is required to make a health care declaration. It is strictly voluntary. While it is proper for a physician to inform patients of the opportunity to prepare a declaration and encourage them to consider it, *it is against the law to force anyone to sign a declaration for whatever reason.*

Should a proxy be named?

The law permits but does not require an individual to name a proxy. Patients should at least consider naming a willing proxy and an alternate, because all medical conditions and decisions cannot be spelled out in one document. A proxy can further ensure that the patient's wishes are carried out if the patient is later unable to make his or her own decisions. Under the law, the designated proxy is nominated to be guardian or conservator of the declarant should such an appointment be necessary.

The powers of the proxy become effective when the patient is no longer able to communicate his or her desires. The proxy is given the same authority to make health care decisions as the declarant. The law requires that the proxy act consistently with any desires expressed by the patient. In the absence of such knowledge, the proxy must act in the best interest of the declarant.

What should a patient do with the completed declaration?

The completed declaration must be signed by two witnesses or a notary public. The proxy or heirs to the declarant's estate cannot be witnesses. Patients should be encouraged to make copies of their declaration and give them to their proxy, family, physician (to be included in their medical records), and anyone else they feel is appropriate.

The original document should be kept in a safe place with other important documents. *It should not be put in a safe-deposit box,* because it would not be accessible when needed. The Minnesota Medical Association suggests that declarations be reviewed periodically to see if any changes need to be made. It may be valuable for patients to review, re-sign, and date their declaration every few years to assure that it continues to be an accurate expression of their desires.

What if a terminally ill patient's wishes change?

The law states that a declaration can be revoked in whole or in part at any time and in any manner, regardless of the declarant's physical or mental condition, when the declarant expresses that desire to the attending physician or other health care provider. The fact that only the declarant can revoke the declaration reflects strong legislative support for patient autonomy.

When does a health care declaration go into effect?

Although the declaration becomes "operative" when accepted and inserted into the medical record, in practice, a declaration will not become truly operative until the declarant is in a terminal condition and unable to make decisions for him or herself. "Terminal condition" is defined by law as "an incurable or irreversible condition for which the administration of medical treatment will only prolong the dying process."

What is the physician's responsibility?

When a declaration is delivered to a physician or other health care provider, the law requires the receiver to make the declaration a part of the medical record. If the physician feels he or she cannot comply with the declaration, the physician must notify the declarant and indicate that in the medical record. As stated in the law: "If the physician . . . is unwilling at any time to comply with the declaration, the physician . . . must promptly notify the declarant and document the notification in the declarant's medical records."

If the physician chooses not to comply, it becomes the declarant's responsibility to transfer to another physician or provider if he or she wishes. If a physician receives a declaration, is unwilling to comply, and does not advise the declarant of this unwillingness prior to the declarant's incompetency, the physician is obliged promptly to take all reasonable steps to transfer the care of that patient to a physician willing to comply with the declaration.

What should a physician look for in an advance declaration?

If the declaration is on a preprinted form, that form must "substantially comply" with the form

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specified in the law. The form on the following pages meets this standard. Patients may also present other forms or handwritten documents to their physicians. (Care should be taken with out-of-state declarations or ones written before August 1, 1989. These declarations must also "substantially comply" with the suggested form in statute. In order to avoid confusion, physicians should encourage patients who are unsure whether their forms comply to fill out another declaration using the new form.)

Although the law does not state who is responsible for determining substantial compliance, it does state that declarations become "operative" when delivered to a physician. Therefore, physicians should understand the elements of a valid declaration and review any declaration brought to them to assure that several conditions are met.

The elements of a declaration that constitute substantial sameness are arguably more important than the form itself. Several conditions are necessary to comply with the law. The document: (1) must state preferences regarding health care; (2) must refer to a terminal condition; and (3) must be signed by the declarant and two witnesses or a notary public, none of whom may be named as proxies or be entitled to any part of the declarant's estate. In addition, declarants should include a statement of their wishes regarding artificially administered nutrition and hydration *and/or* that the proxy is instructed to make such decisions.

Key points

- ► It is extremely important for declarants to consider their beliefs relating to death and discuss them with family, friends, or clergy.
- ► Physician-patient discussion is very important.
- ► An attorney is not needed, but patients may find it helpful to consult one.
- ► All health care declaration forms prepared for public distribution must be substantially the same as the form suggested in the law. Physicians may want to provide their patients with copies of the following form.
- ► Patients should be encouraged to consider designating a proxy to make health care decisions when the patient is unable to do so. Patients should discuss their feelings and desires regarding health care with their designated proxy.
- ► All parts of the form need not be completed; however, if the section regarding artificial sustenance is not completed, the proxy may be precluded from making decisions in this specific area. Patients may wish to give their proxy the authority to make these decisions.

Health care declaration form

This article and the following health care declaration form, which is in compliance with Minnesota law, may be reproduced and distributed by physicians as they see fit. The Minnesota Medical Association encourages distribution of the health care declaration form to patients interested in preparing a declaration under Minnesota's new law. A more informed patient will prepare a more comprehensive and clear document.

Reprints of this article and the health care declaration form can be obtained by contacting the Minnesota Medical Association at (612) 378-1875 or (800) 999-1875.

Health Care Declaration or 'Living Will'

NOTICE: This is an important legal document. Before signing this document, you should know these important facts:

A. This document gives your health care providers or your designated proxy the power and guidance to make health care decisions according to your wishes when you are in a terminal condition and cannot do so. This document may include what kind of treatment you want or do not want and under what circumstances you want these decisions to be made. You may state where you want or do not want to receive any treatment.

B. If you name a proxy in this document and that person agrees to serve as your proxy, that person has a duty to act consistently with your wishes. If the proxy does not know your wishes, the proxy has the duty to act in your best interests. If you do not name a proxy, your health care providers have a duty to act consistently with your instructions or tell you that they are unwilling to do so.

C. This document will remain valid and in effect until and unless you amend or revoke it. Review this document periodically to make sure it continues to reflect your preferences. You may amend or revoke the declaration at any time by notifying your health care providers.

D. Your named proxy has the same right as you have to examine your medical records and to consent to their disclosure for purposes related to your health care or insurance unless you limit this right in this document.

E. If there is anything in this document that you do not understand, you should ask for professional help to have it explained to you.

This declaration is your statement of the care you want or do not want when in a terminal condition and unable to participate in health care decisions. It will become a key element in your care plan. Your physician, however, must at all times act within the bounds of reasonable medical practice. This means that your declaration cannot be expected to absolutely control treatment decisions. Situations may arise in which your physician cannot honor the precise desires of your declaration. If this occurs, your physician will be obliged to clearly state the basis for such a decision.

Comments and instructions
Consult this column for help and guidance. The information in this column is not a part of the form suggested by the law. It is provided for your convenience and to help explain each section of the form. The comments are not intended as "guidelines" or "suggestions." You are encouraged, but not required, to complete each section.

This declaration sets forth your directions regarding health care. You may give your instructions by filling in the blanks in any or all of the following paragraphs or leave these decisions to the discretion of your physician or proxy (if any). You may attach an additional page or pages if more space is needed. You are stongly encouraged to discuss this form with your physician.

You may state your wishes regarding health care. These will apply when you have an incurable or irreversible illness or injury with no hope of recovery.

You may wish to specify that you want care that will provide comfort and control pain, as well as treatment that may be reasonably expected to improve your condition.

You may or may not wish to list specific types of treatment here. You may wish to state that you do not want treatment if it will not help you recover or will only prolong the dying process.

You may state that you want certain types of treatment tried for a limited time to determine whether they are beneficial: for example, cardiopulmonary resuscitation (CPR) or mechanical respiration. You may also state that you want all available medical treatment.

TO MY FAMILY, PHYSICIANS, AND ALL THOSE CONCERNED WITH MY CARE:

I, ____,
being an adult of sound mind, willfully and voluntarily make this statement as a directive to be followed if I am in a terminal condition and become unable to participate in decisions regarding my health care. I understand that my health care providers are legally bound to act consistently with my wishes, within the limits of reasonable medical practice and other applicable law. I also understand that I have the right to make medical and health care decisions for myself as long as I am able to do so and to revoke this declaration at any time.

1. The following are my feelings and wishes regarding my health care. *(You may state the circumstances under which this declaration applies.)*

____
____
____
____

2. I particularly want to have all appropriate health care that will help in the following ways. *(You may give instructions for care you do want.)*

____
____
____
____

3. I particularly do not want the following. *(You may list specific treatment you do not want in certain circumstances.)*

____
____
____
____

4. I particularly want to have the following kinds of life-sustaining treatment if I am diagnosed to have a terminal condition. *(You may list the specific types of life-sustaining treatment that you do want if you have a terminal condition.)*

____
____
____

Designation of alternate proxy.

If the person I have named refuses or is unable or unavailable to act on my behalf, or if I revoke that person's authority to act as my proxy, I authorize the following person to do so:

Name ____________________

Address ____________________

Phone Number ____________________

Relationship (if any) ____________________

I understand that I have the right to revoke the appointment of the persons named above to act on my behalf at any time by communicating that decision to the proxy or my health care provider.

You must date and sign your declaration in the presence of a notary public or two witnesses.

9. Notarization or witnessing. Your declaration should either be notarized or witnessed:

Date ____________________

Signed ____________________

STATE OF ____________________
COUNTY OF ____________________

If you choose to have your declaration notarized, the notary public cannot be named as a proxy in your declaration.

Subscribed, sworn to, and acknowledged before me by ____________, on this ____________ day of ____________, 19 ____.

____
Notary Public

OR...

If you choose to have your declaration witnessed, neither of your witnesses can be named as your proxy, nor can your proxy be someone who may inherit from you.

(Sign and date in the presence of two adult witnesses, neither of whom is entitled to any part of your estate under a will or by operation of law, and neither of whom is your proxy.)

I certify that the declarant voluntarily signed this declaration in my presence and that the declarant is personally known to me. I am not named as a proxy by the declaration, and to the best of my knowledge, I am not entitled to any part of the estate of the declarant under a will or by operation of law.

Witness ____________________

Address ____________________

Witness ____________________

Address ____________________

Keep this document in a safe place but not in a safe-deposit box. Make sure your physician is willing to follow your wishes. Your health care declaration should be part of your medical record.

REMINDER: Keep the signed original with your personal papers in a safe place. Give signed copies to your physicians, family, close friends, and proxy or alternate proxy.

You may list specific treatment you do not want, such as CPR or long-term mechanical respiration, or any other life-prolonging care that is not necessary to provide comfort or relief from pain.

5. I particularly do not want the following kinds of life-sustaining treatment if I am diagnosed to have a terminal condition. *(You may list the specific types of life-sustaining treatment that you do not want if you have a terminal condition.)*

____

____

____

____

Artificially administered sustenance (tube feeding) may prolong your dying indefinitely if you are permanently unconscious or in a persistent vegetative state. You may state either that you want or do not want artificially administered sustenance, or that you want your proxy or physician to make that decision for you.

6. I recognize that if I reject artificially administered sustenance, then I may die of dehydration or malnutrition rather than from my illness or injury. The following are my feelings and wishes regarding artificially administered sustenance should I have a terminal condition. *(You may indicate whether you wish to receive food and fluids given to you in some other way than by mouth if you have a terminal condition.)*

____

____

____

____

In addition to religious beliefs, personal values, or preferences regarding the location of your care, you may wish to add a provision regarding organ donation or disposition of your remains. For example, you may wish to state, "I want to donate my tissues and organs so that others may benefit from my passing."

7. Thoughts I feel are relevant to my instructions. *(You may, but need not, give your religious beliefs, philosophy, or other personal values that you feel are important. You may also state preferences concerning the location of your care.)*

____

____

____

____

You are encouraged to name a proxy to make health care decisions for you when you cannot do so. Your proxy must honor your wishes as expressed in this declaration, or act in your best interests if your wishes are not known. If you name a proxy here but do not complete item 6, your proxy may not be able to make a decision for you regarding artificially administered sustenance. This provision ensures that your proxy will be able to make health care decisions for you to the fullest extent permitted by law.

8. Proxy designation. *(If you wish, you may name someone to see that your wishes are carried out, but you do not have to do this. You may also name a proxy without including specific instructions regarding your care. If you name a proxy, you should discuss your wishes with that person.)*
If I become unable to communicate my instructions, I designate the following person(s) to act on my behalf consistently with my instructions, if any, as stated in this document. Unless I write instructions that limit my proxy's authority, my proxy has full power and authority to make health care decisions for me. If a guardian or conservator of the person is to be appointed for me, I nominate my proxy named in this document to act as guardian or conservator of my person.

Name

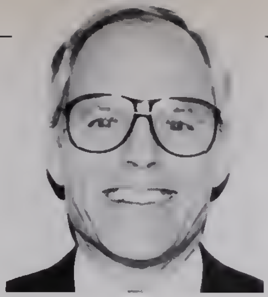
____

Address

____

Phone Number________________________________

Relationship (if any) __________________________



ROBERT D. CHRISTENSEN, M.D.

PRESIDENT'S LETTER

Physicians Must Take the Initiative in Adolescent Health Care

A physician's interpersonal skill—always an important aspect of patient care—is crucial in dealing with adolescents. The major problems in adolescent health can't be solved with antibiotics. They require the judgment and sensitivity of a physician who knows how to ask the right questions and to look for signs of emotional trouble. Especially in this age group, the emphasis should be on prevention rather than cure.

An American Medical Association white paper blamed five factors for the 11 percent increase in the morbidity and mortality rates for adolescents in the last 20 years: substance abuse, sexuality and pregnancy, victimization, psychological disorders and suicide, violence and trauma. Based on these findings, the AMA is focusing its current Adolescent Health Initiative on the issue of social morbidity. Speaking at the AMA Auxiliary's Leadership Confluences in October 1988 and February 1989, Arthur Elster, M.D., head of the AMA Department of Adolescent Health, said that societal issues do translate into health problems for some adolescents. "It is no surprise that of the leading causes of death for young adults aged 15 to 24, the top three are from social morbidity. They are accidents (55 percent), homicides (12 percent), and suicides (10 percent). Two-thirds to three-fourths of deaths are from social issues, and they are preventable," Elster said.

As physicians, we are called upon to do everything in our power to prevent unnecessary deaths among our young patients. We must make every effort to guide adolescents toward a healthy lifestyle and to intervene on their behalf whenever necessary. Physicians have a unique opportunity to educate and influence young people. An article by James Rogers, M.D., and Barbara Elliott, Ph.D., in last month's *Minnesota Medicine* ("The Physician's Role in Adolescent Health Education," page 461) indicates that a majority of teen-agers would like to discuss health and lifestyle issues with a physician. Exercise, nutrition, sexuality issues and body changes, as well as relationship and mental health problems were some of their chief concerns.

"The major problems in adolescent health can't be solved with antibiotics."

Regular physical exams before school can be an ideal time to educate our adolescent patients about dangerous behaviors and to identify youngsters who are at high risk. We know that alcohol is an underlying factor in many adolescent health problems, including accidents, homicides, and suicides. Its use begins surprisingly early. According to Dr. Elster, teen-agers who use alcohol tend to start in the 6th grade, and those who use marijuana usually start in the 7th or 8th grade. At these critical times, we can make sure the adolescent knows the dangers posed by drugs, alcohol, and cigarettes. We can ask about steroid use, about eating disorder symptoms, about alcohol and drug use in the family.

Sensitivity to the problems of teen-agers may help us realize when to intervene on behalf of troubled adolescents who need mental health care. A recent report by the Institute of Medicine determined that at least 7.5 million children—or 12 percent of the nation's under-18 population—suffer from a mental disorder or emotional disturbance. Between 60 percent and 70 percent of teen-agers who commit suicide have seen a physician within six months of their deaths, according to Marshall Rosman, Ph.D., AMA director of mental health. High risk factors include depression, substance abuse, and antisocial behavior. Primary care providers should be alert to the danger signs that often point to emotional disorders, such as difficulty following rules, alcoholism, poverty, or a suicide in the family. A teen-ager who wears a beeper is more likely to be dealing drugs than emulating a physician. An unlikable, surly teen-ager may be the one most in need of help. By reaching out to adolescents, we can build strong doctor-patient relationships and promote habits of sound health that could last a lifetime.

Physicians must make it clear to our society that we care about the health of young people. One way to do this is to be available to speak in the classroom or at community events. The survey conducted by Rogers and Elliott found that most teen-agers prefer to hear physicians speak on health issues in a classroom setting. "The kid who may be too shy to speak up in the physician's office may shout out a question in the auditorium," said James Rusin, M.D., chair of the MMA Young Physicians Section. Currently, the section is developing a statewide program designed to increase junior and senior high school students' awareness of health and science issues and to help physicians become more active and involved in their communities.

On a national level, the goal of the AMA Adolescent Health Initiative is to educate physicians and the public. Information about physical and psychosocial development, disease pathophysiology and assessment techniques, and interpretation and assessment of research information is being circulated to physicians and other health care profesionals. AMA efforts directed toward service and community groups include the Annual Congresses on Adolescent Health, a television program broadcast earlier this year, and promotion of a program begun by the National Collaboration for Youth to encourage town hall meetings on adolescent health issues. The AMA Auxiliary, in addition to developing community programs on adolescent health, has been working with the American College of Obstetricians and Gynecologists and the American Academy of Family Physicians on a campaign to prevent teen pregnancy and with the AMA on its Youth HIV/AIDS Education Program.

How bright will the future be for our young patients? To a great extent, it depends on us. We must continue to educate ourselves and our patients on adolescent health issues and be willing to share our knowledge in the clinic, the community, and the classroom. ■

Aspiration References from page 519

10. Aitkenhead AR: Anaesthesia and the gastro-intestinal system. Europ J Anaesthesiol 5:73-112, 1988.

11. Wyner J, Cohen SE: Gastric volume in early pregnancy: Effect of metoclopramide. Anesthesiology 57:209-212, 1982.

12. Vaughan RW, Bauer S, Wise L: Volume and pH of gastric juice in obese patients. Anesthesiology 43:686-689, 1975.

13. Ong BY, Palahniuk RJ, Cumming M: Gastric volume and pH in out-patients. Can Anaesth Soc J 25:36-39, 1978.

14. Gibbs CP, Modell JH: Aspiration pneumonitis. In: Anesthesia (vol 3, 2nd ed). RD Miller (ed). New York: Churchill Livingstone, 1986, p 2023.

15. Joyce TH III: Prophylaxis for pulmonary acid aspiration. Am J Med 83 Suppl 6A:46-52, 1987.

16. Attia RR, Ebeid AM, Fischer JE, Goudsouzian NG: Maternal fetal and placental gastrin concentrations. Anaesthesia 37:18-21, 1982.

17. Ellmauer S: Prophylaxe und Therapie des Säure-Aspirations-Syndroms. Anaesthetist 36:599-607, 1987.

18. Eyler SW, Cullen BF, Murphy ME, Welch WD: Antacid aspiration in rabbits: A comparison of Mylanta and Bicitra. Anesth Analg 61:288-292, 1982.

19. Toung T, Cameron JL: Cimetadine as a preoperative medication to reduce the complications of aspiration of gastric contents. Surgery 87:205-208, 1980.

20. Francis RN, Kwik RSH: Oral ranitidine for prophylaxis against Mendelson's syndrome. Anesth Analg 61:130-132, 1982.

21. Maile CJD, Francis RN: Pre-operative ranitidine: Effect of a single intravenous dose on pH and volume of gastric aspirate. Anaesthesia 38:324-326, 1983.

22. Swift CA, Dubow HD, Silverman DG: Oral H_2 anatagonist prophylaxis with famotidine on the morning of surgery (abstract). Anesthesiology 69 Suppl:733, 1988.

23. Capan LM, Rosenberg AD, Carni A, Patel KP, Sheth R, Kitain E, Turndorf H: Effect of cimetidine-metoclopromide combination on gastric fluid volume and acidity (abstract). Anesthesiology 59 Suppl:402, 1983.

24. Stoelting RK: Gastric fluid volume and pH after fentanyl, enflurane, or halothane-nitrous oxide anesthesia with or without atropine or glycopyrrolate. Anesth Analg 59:287-290, 1980.

25. Sellick BA: Cricoid pressure to control regurgitation of stomach contents during induction of anesthesia. Lancet 2:404-406, 1961.

26. Holdsworth JD, Furness RMB, Roulston RG: A comparison of apomorphine and stomach tubes for emptying the stomach before general anaesthesia in obstetrics. Br J Anaesth 46:526-529, 1974.

27. Burgess GE III, Cooper JR Jr., Marino RJ, Peuler MJ, Warriner RA III: Laryngeal competence after tracheal extubation. Anesthesiology 51: 73-77, 1979.

28. Downs JB, Klein EF Jr, Modell JH: The effect of incremental PEEP on Pa_{O_2} in patients with respiratory failure. Anesth Analg 52:210-214, 1973.

29. Downs JB, Modell JH: Cited by Modell JH, Boysen PG.[31]

30. Chapman RL Jr, Modell JH, Ruiz BC, Calderwood HW, Hood CI, Graves SA: Effect of continuous positive-pressure ventilation and steroids on aspiration of hydrochloric acid (pH 1.8) in dogs. Anesth Analg 53:556-562, 1974.

31. Modell JH, Boysen PG: Pulmonary aspiration of stomach contents. In: Textbook of Critical Care. WC Shoemaker, WL Thompson, PR Holbrook (eds). Philadelphia: WB Saunders, 1984, pp 272-275.

32. Wynne JW, Modell JH: Respiratory aspiration of stomach contents. Ann Intern Med 87:466-474, 1977.

33. Chapman RL Jr, Downs JB, Modell JH, Hood CI: The ineffectiveness of steroid therapy in treating aspiration of hydrochloric acid. Arch Surg 108:858-861, 1974.

34. Wynne JW, Reynolds JC, Hood CI, Auerbach D, Ondrasick J: Steroid therapy for pneumonitis induced in rabbits by aspiration of foodstuff. Anesthesiology 51:11-19, 1979.

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TWIN CITIES HEALTH CARE COSTS

The average Twin Cities' household spent $1,458 on health care in 1987, up 11.9 percent from 1985, according to a report released in July by the Metropolitan Health Planning Board and the University of Minnesota's School of Public Health. The ongoing survey of 1,000 households also reported that, during the same three-year period, the medical component of the Twin Cities Consumer Price Index rose 17 percent, which, when compared with the 11.9 percent increase in cost to the consumer, indicates consumers got a break on health care costs. The survey does not cover, however, most of 1988, when HMOs and other health plans raised their prices significantly to offset losses.

The survey also revealed that despite higher health care payments, 94 percent of HMO enrollees and 87 percent of fee-for-service patients were satisfied with most aspects of their health care.

MORE NURSING STUDENTS

In an effort to help meet demands for hundreds of nurses in the Twin Cities area (there were close to 600 vacancies in the first quarter of 1989), six area community colleges announced that they plan to increase class size by 120 nursing students this fall in their two-year registered nurse programs. An additional 120 spaces are slated to open in the fall of 1990. The community colleges that are expanding their programs are: Anoka-Ramsey, Minneapolis, Normandale, North Hennepin, Inver Hills, and Lakewood.

NOKOMIS CLINIC CLOSES

The University of Minnesota in August closed its 14-year-old Nokomis Clinic at 5251 Chicago Avenue South in Minneapolis because of finances. The university was losing about $150,000 a year on the clinic, which, according to university officials, didn't draw enough patients to hold down losses. Former Nokomis patients have been urged to seek care at Smiley's Point Clinic in the Riverside area of South Minneapolis.

HIGH TURNOVER AT RAMSEY CLINIC

The 170-physician Ramsey Clinic in St. Paul, closely affiliated with St. Paul-Ramsey Medical Center, has a turnover rate markedly higher than other metro-area medical groups, according to a report presented in June to Ramsey HealthCare Inc. The report said that the clinic had a 14 percent average annual turnover rate since 1983, and a 16 percent turnover rate since 1988. In comparison, Hennepin Faculty Associates reports a 2 to 3 percent annual turnover rate, Columbia Park Medical Group has a 5.3 percent turnover rate, and Park Nicollet Medical Group has a 7.4 percent rate.

Clinic officials cited low pay as the reason for the difference. The report found that Ramsey Clinic physicians are paid 81 percent of what physicians are paid in 19 comparable clinics. (The names of those clinics were not revealed.)

HEALTHEAST'S FUTURE

HealthEast will have lost more than $20 million in the fiscal year that ended August 31, even after cutting staff and raising rates, according to Arthur Andersen & Co. and the Hunter Group—consultants hired by HealthEast. The consultants recommended that HealthEast, which is St. Paul's largest hospital system, raise hospital fees and cut staff at its five hospitals by about 300 full-time jobs, including 20 managerial positions.

The consultants, who made their predictions and recommendations in early July, said that if their recommendations are followed, losses in the fiscal year ending August 31, 1989, will be cut—from $24.8 million to $20.4 million—and HealthEast will post a $6.8-million to $8.8-million profit this fiscal year. Michael Loscalzo, HealthEast chief financial officer, said the company is following the consultants' recommendations.

HealthEast employs 5,000 people, both full time and part time.

RURAL HOSPITAL CLOSINGS

Two rural Minnesota hospitals closed in June and July, reflecting the nationwide fiscal crunch in rural health care. The 32-bed Gaylord Community Hospital closed June 16, and the 18-bed hospital portion of the Caledonia Health Care Center closed July 31. The Gaylord Community Hospital had averaged just over two patients a day in 1988, and the Caledonia hospital averaged 1.2 patients per day in 1989.

KIDNEY, PANCREAS TRANSPLANTS

Diabetics with transplanted kidneys who

undergo successful pancreas transplantation experience less kidney damage than diabetics with transplanted kidneys who do not receive pancreas transplants, according to research by Michael W. Steffes, M.D., and colleagues at the University of Minnesota.

The findings support the hypothesis that normal blood sugar control in diabetics, when achieved by pancreas transplantation, can prevent the progression of diabetic glomerulopathy.

The research, published in the July 13 *New England Journal of Medicine,* involved two groups of insulin-dependent diabetics who had received kidney transplants. One group of 12 had received pancreas transplants following their kidney transplants. The other 13 did not receive pancreas transplants. The group that had undergone pancreas transplantation had significantly less kidney damage than the group that did not receive pancreases. Indications of kidney damage were based on blood and other laboratory tests and on kidney biopsies done at least one year after kidney transplantation and again following pancreas transplantation (or another kidney biopsy for the patients who did not receive new pancreases).

REDUCING PREMATURE BIRTH RATES

Barbara Yawn, M.D., and Roy Yawn, M.D., of Worthington, Minnesota, reported a 60 percent reduction in premature births following a treatment program developed by Barbara Yawn. The study, published in the July 14 *Journal of the American Medical Association*, reported that, during the two years in which the doctors implemented the treatment program, the rate of premature births declined from 3.2 percent to 1.3 percent of all live births. The authors used babies born during the previous three years as the control group.

A key to their method was to determine which women were at high risk for having premature babies. Women were considered to be at high risk if they previously had premature labor or delivery, had undergone a cone biopsy, had an abnormality of the uterus, had been exposed as fetuses to the hormone diethylstilbestrol, had undergone a second-trimester abortion, carried more than one fetus, or had undergone abdominal surgery. The high-risk women were seen weekly by a physician after the 24th week of pregnancy for warning signs of premature birth, and those who went into premature labor were given medication to inhibit labor.

The premature infants born during the study period weighed more and required fewer intensive-care-unit visits than the premature babies in the control group.

IMMEDIATE POST-MASTECTOMY RECONSTRUCTION

A study in July's *Archives of Surgery* "enthusiastically" recommends immediate breast reconstruction after mastectomy for breast cancer. The authors, Craig H. Johnson, M.D., and colleagues at the Mayo Clinic, Rochester, Minnesota, reported the outcomes of 118 women at their institution who, between 1980 and 1986, received breast reconstruction immediately following removal of their cancerous breasts. Immediate insertion of a breast prosthesis avoids the costs, risks, and discomfort of a second operation, they reported. Also important is the avoidance of much of the psychological damage that results from mastectomy. "The five-year survival of 81 percent for patients in this immediate reconstruction population compared favorably with the 87 percent five-year survival at our institution following modified radical mastectomy alone," they said.

There has been some concern that breast implants may hide the recurrence of cancer; however, the authors said that the various types of commercially available silicone implants that were used did not prevent early detection in the seven patients who experienced local recurrence of cancer.

MAMMOGRAPHIES FOR NUNS

A letter from David A. Snowdon, Ph.D., M.P.H., and colleagues at the University of Minnesota, published in the July 14 *Journal of the American Medical Association*, said that Roman Catholic nuns need to be educated about the importance of mammographic examinations in preventing death from breast cancer. Approximately 50 percent of the 114,000 nuns in the United States are 65 years or older, and virtually all have never been pregnant, they said. Both age and lack of reproduction in women are major risk factors for breast cancer, they wrote.

"The probability of dying of breast cancer in U.S. Catholic sisters has been shown to be as high as 1 percent among those aged 60 through 69 years, 2 percent among those aged 70 through 79 years, and 3 percent among those 80 years of age and older (which is approximately 50 percent, 110 percent, and 180 percent higher, respectively, than probabilities for the general U.S. female population)," they reported.

Based on these concerns, the authors interviewed nuns in a Minnesota convent who were 75 years or older. They found that fewer than one in five of the elderly sisters receive annual mammographic examinations.

STUDENT HEALTH SURVEY

Minnesota public school students report low cocaine use (3 percent for high school seniors, 2 percent for ninth-graders) and crack use (1 percent for seniors and less than that for ninth-graders), but apparently face other problems, according to a survey conducted by private researchers and released in July.

Some other findings of the survey of sixth-graders, ninth-graders, and seniors responding to a confidential questionnaire: One of every six girls reported having been forced into sexual contact. Five percent of sixth-graders used illegal drugs in the past year, compared with 15 percent of ninth-graders and 22 percent of seniors. One in nine students had attempted suicide. Seventy percent of metro-area seniors had engaged in sex, while 56 percent from the rest of the state had.

COCAINE BABIES/ COCAINE ABORTIONS

A study of two public and six private Twin Cities-area hospitals revealed cocaine use by soon-to-deliver pregnant women ranged from 0.5 percent at some of the private hospitals to 9 percent at one of the public hospitals (which wasn't named). The study, sponsored by the Minnesota Department of Health and released in July, was based on anonymous tests of pregnant women's urine samples taken in the labor-delivery department. The tests can detect cocaine taken up to 48 hours before testing.

The public hospitals studied were Hennepin County Medical Center in Minneapolis and St. Paul-Ramsey Medical Center in St. Paul, and the private hospitals were Fairview Riverside and Abbott Northwestern in Minneapolis, United in St. Paul, Fairview Southdale in Edina, Fairview Ridges in Burnsville, and North Memorial in Robbinsdale. On average, 2.4 percent of the patients tested positive for cocaine use, but this figure may be inflated, because 400 patients were tested at each of the public hospitals, while 200 were tested at each of the private hopsitals.

Also in July, University of Minnesota professor of pediatrics Robert ten Bensel, M.D., told a national panel of judges that some women may be ending their pregnancies early through cocaine use. Ten Bensel told the National Council of Juvenile and Family Court Judges that, although no figures exist, doctors are reporting such cases. He also added that these instances of cocaine-induced abortions would increase if states impose abortion restrictions following the recent U.S. Supreme Court's ruling that allows such restrictions. Clare Rubin, Ph.D., a clinical pathologist with Grady Memorial Hospital in Atlanta, said she thinks the number of women aborting with cocaine is small.

Cocaine causes a sharp constriction of blood vessels, which may cause premature delivery in pregnant women.

AND THE RICH GET C-SECTIONS

Wealthy women are 73 percent more likely to give birth by Caesarean section than are poor women, a study in the July 27 *New England Journal of Medicine* reported. Jeffrey B. Gould, M.D., of the University of Berkeley School of Public Health, and colleagues studied 245,854 Los Angeles County birth certificates from 1982 and 1983, and 1980 census statistics on income.

They found that the incidence of Caesarean births—which was independent of the mother's age, whether she had had children before, or the baby's birth weight, race, or ethnic group—steadily increased with a women's family income level. The rate of Caesarean births in women with a family income over $30,000 was 22.9 percent, the rate of women whose family income was below $11,000 was 13.2 percent, and the overall rate was 17.8 pecent.

(SOME) REST FOR WEARY RESIDENTS

New York became the first state to limit interns' and residents' hours when the New York Health Department announced that it will limit shifts to 24 hours and work weeks to 80 hours effective July 1. Previously, shifts lasted up to 36 hours, and 100-hour work weeks were the norm.

The Hospital Association of New York State and Blue Cross—with support from the state medical society—have sued to block the regulations, citing the cost of lost resident and intern hours. The hospital industry estimated that 4,500 to 5,000 additional workers would be needed statewide to offset the lost hours.

SECOND MEASLES SHOT

The American Academy of Pediatrics recommended in July that U.S. children—particularly those entering middle school or junior high—receive a second vaccine for measles. The vaccination would be in addition to the one that all children are supposed to received at about 15 months of age.

The warning comes in a year in which the Centers for Disease Control reported 7,563 measles cases in the United States as of July 9, a 376 percent increase over the 1,586 reported cases for the same period in 1988. Scott Giebink, M.D., of the University of Minnesota and a member of the academy's committee on infectious diseases, said about 60 percent of those new cases were in children already vaccinated.

HEART ATTACK RISK AND ASPIRIN

Healthy men over 50 cut their risk of suffering a heart attack nearly in half if they take one aspirin every day, according to a nationwide Physicians' Health Study. The report, which appeared in the July 20 *New England Journal of Medicine*, studied 22,071 healthy male doctors who were 40 to 84 years of age when the study began in 1982; 11,037 of them took 325 milligrams of aspirin every day and 11,034 took placebos. The men who took aspirin suffered 44 percent fewer heart attacks—10 fatal and 129 nonfatal—than the placebo-takers, who suffered 26 fatal and 213 nonfatal heart attacks.

FEWER UNINSURED

A study of 1988 U.S. Census Bureau data determined the number of Americans lacking health insurance to be 31.1 million—significantly lower than the often-cited 37 million figure from an earlier study of 1987 bureau statistics. M. Eugene Moyer, Ph.D., the economist who conducted the study, said the new figure may not necessarily reflect a decrease in the number of uninsured, but may instead result from a more complete list of questions.

AIDS: THE GOOD NEWS AND THE BAD

Researchers at the National Cancer Institute in July published the first compelling studies that show the new drug dideoxyinosine (ddI) to be more effective and far less toxic than AZT. In studies of more than 100 people with AIDS, the institute found that ddI increases

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Yohimbine exerts a stimulating action on the mood and may increase anxiety. Such actions have not been adequately studied or related to dosage although they appear to require high doses of the drug. Yohimbine has a mild anti-diuretic action, probably via stimulation of hypothalmic centers and release of posterior pituitary hormone.

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Warning: Generally, this drug is not proposed for use in females and certainly must not be used during pregnancy. Neither is this drug proposed for use in pediatric, geriatric or cardio-renal patients with gastric or duodenal ulcer history. Nor should it be used in conjunction with mood-modifying drugs such as antidepressants, or in psychiatric patients in general.

Adverse Reactions: Yohimbine readily penetrates the (CNS) and produces a complex pattern of responses in lower doses than required to produce peripheral a-adrenergic blockade. These include, anti-diuresis, a general picture of central excitation including elevation of blood pressure and heart rate, increased motor activity, irritability and tremor. Sweating, nausea and vomiting are common after parenteral administration of the drug.[1,2] Also dizziness, headache, skin flushing reported when used orally.[1,3]

Dosage and Administration: Experimental dosage reported in treatment of erectile impotence.[1,3,4] 1 tablet (5.4 mg) 3 times a day, to adult males taken orally. Occasional side effects reported with this dosage are nausea, dizziness or nervousness. In the event of side effects dosage to be reduced to ½ tablet 3 times a day, followed by gradual increases to 1 tablet 3 times a day. Reported therapy not more than 10 weeks.[3]

How Supplied: Oral tablets of Yocon® 1/12 gr. 5.4 mg in bottles of 100's NDC 53159-001-01 and 1000's NDC 53159-001-10.

References:

1. A. Morales et al., New England Journal of Medicine: 1221. November 12, 1981.
2. Goodman, Gilman — The Pharmacological basis of Therapeutics 6th ed., p. 176-188. McMillan December Rev. 1/85.
3. Weekly Urological Clinical letter, 27:2, July 4, 1983.
4. A. Morales et al., The Journal of Urology 128: 45-47, 1982.

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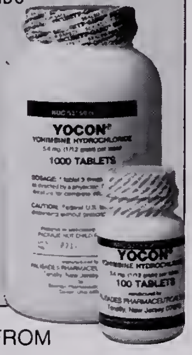

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the number of T4 lymphocytes while lowering the levels of Human Immunodeficiency Virus (HIV) in the bloodstream. While the long-term effects of ddI have yet to be revealed, the drug appears to produce far fewer side effects than AZT.

A new test called polymerase chain reaction (PCR), however, has shown that AIDS patients develop an HIV concentration 100 to 1,000 times greater than previously believed. Using PCR, Steven M. Schnittman and colleagues at the National Institute of Health determined that up to 1 percent of AIDS patients' T4 lymphocytes may be HIV infected. The higher rate of infection means it will be more difficult to find and eradicate every pocket of the disease in a patient. Previous estimates, using less direct ways of measuring HIV-infected T4 lymphocytes, placed the concentration at between 1 in 10,000 and 1 in 100,000. The results were published in the August 1989 *Science*.

LUNG CANCER DEATHS

Deaths from lung cancer have increased 15 percent over the past seven years, the Centers for Disease Control reported in July. And although 74 in 100,000 men died of lung cancer nationwide in 1986—compared to 27 in 100,000 women—the mortality rate for women jumped 44 percent since 1979, compared with a 7 percent increase for men. The rate for both men and women nationwide was 50 deaths per 100,000 people in 1986; Minnesota ranked 47th with a rate of 40 deaths per 100,000.

SUICIDES AMONG THE ELDERLY

Suicide rates among the elderly—the group in which suicide is most prevalent—rose by 25 percent from 1981 to 1986, according to the National Center for Health Statistics. This finding reverses a trend of declining rates since 1933, which was when national suicide statistics were first compiled. The rate among the over-65 group in 1933 was 45.3 per 100,000, and the national average was 15.9. In 1981, it had fallen to 17.1, and the national average was 12.0.

By 1986, however, the rate among the elderly had steadily increased to 21.6 per 100,000, with the national average at 12.8. To compare with other age groups, the rate for 15- to 24-year-olds was 13.1, for 25- to 44-year-olds, it was 15.5, and for 45- to 64-year-olds, 16.7.

Among the elderly in 1986, those 65 to 74 had a suicide rate of 19.7 per 100,000, those 75 to 84 had a rate of 25.2, and those 85 and older had a rate of 20.8.

ARMY RESERVE MEDICAL PROFILE NO. 5

ROSALYN P. STERLING-SCOTT, M.D.

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Consult the package literature for prescribing information.

Indication: Lower respiratory infections, including pneumonia, caused by *Streptococcus pneumoniae, Haemophilus influenzae,* and *Streptococcus pyogenes* (group A β-hemolytic streptococci).
Contraindication: Known allergy to cephalosporins
Warnings: CECLOR SHOULD BE ADMINISTERED CAUTIOUSLY TO PENICILLIN-SENSITIVE PATIENTS. PENICILLINS AND CEPHALOSPORINS SHOW PARTIAL CROSS-ALLERGENICITY. POSSIBLE REACTIONS INCLUDE ANAPHYLAXIS.

Administer cautiously to allergic patients.

Pseudomembranous colitis has been reported with virtually all broad-spectrum antibiotics. It must be considered in differential diagnosis of antibiotic-associated diarrhea. Colon flora is altered by broad-spectrum antibiotic treatment, possibly resulting in antibiotic-associated colitis.

Precautions:

- Discontinue Ceclor in the event of allergic reactions to it.
- Prolonged use may result in overgrowth of nonsusceptible organisms.
- Positive direct Coombs' tests have been reported during treatment with cephalosporins.
- Ceclor should be administered with caution in the presence of markedly impaired renal function. Although dosage adjustments in moderate to severe renal impairment are usually not required, careful clinical observation and laboratory studies should be made.
- Broad-spectrum antibiotics should be prescribed with caution in individuals with a history of gastrointestinal disease, particularly colitis.
- Safety and effectiveness have not been determined in pregnancy, lactation, and infants less than one month old. Ceclor penetrates mother's milk. Exercise caution in prescribing for these patients.

Adverse Reactions: (percentage of patients)

Therapy-related adverse reactions are uncommon. Those reported include:

- Gastrointestinal (mostly diarrhea): 2.5%
- Symptoms of pseudomembranous colitis may appear either during or after antibiotic treatment.
- Hypersensitivity reactions (including morbilliform eruptions, pruritus, urticaria, and serum-sickness-like reactions that have included erythema multiforme [rarely, Stevens-Johnson syndrome] and toxic epidermal necrolysis or the above skin manifestations accompanied by arthritis/arthralgia, and frequently, fever): 1.5%; usually subside within a few days after cessation of therapy. Serum-sickness-like reactions have been reported more frequently in children than in adults and have usually occurred during or following a second course of therapy with Ceclor. No serious sequelae have been reported. Antihistamines and corticosteroids appear to enhance resolution of the syndrome.
- Cases of anaphylaxis have been reported, half of which have occurred in patients with a history of penicillin allergy.
- As with some penicillins and some other cephalosporins, transient hepatitis and cholestatic jaundice have been reported rarely.
- Rarely, reversible hyperactivity, nervousness, insomnia, confusion, hypertonia, dizziness, and somnolence have been reported.
- Other: eosinophilia, 2%; genital pruritus or vaginitis, less than 1%; and, rarely, thrombocytopenia.

Abnormalities in laboratory results of uncertain etiology

- Slight elevations in hepatic enzymes.
- Transient fluctuations in leukocyte count (especially in infants and children).
- Abnormal urinalysis, elevations in BUN or serum creatinine.
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Barker from page 494

ing is a myth. I have been surprised to find that medicine continues to be equally stressful whether you are in medical school, in training, or in practice.

I've been surprised by how tough life is in practice. I've been surprised at how much debt I had to incur to make it through medical school and have a young family at the same time. I've been surprised at how long it took to pay off that debt and how much of my earnings my debt consumed. For about three or four years running, I was paying about $700 a month in loan payments. I've been surprised to find that I am a commodity, something that can be used as a bargaining chip, someone whose wages are negotiable, whose hours and number of patients per day are sometimes seemingly out of my control. Yes, there have been surprises.

REECE: *Give us a balanced account of practice in these various environments. Why and how is private practice different from Group Health, or Aspen, or your current position?*

BARKER: I am the son of a physician who practiced solo for many years and with one partner for just as many years. I went into medicine with a blind idealism about independence. I began to temper that idealism when I spent a couple of years with Group Health in the middle of my residency. Still, I expected to enjoy the independence, both financial and personal, that I thought private practice would provide. But I was anything but independent in my private practice. My income was closely tied to the indebtedness I took on to get the practice going and to the cash flow of the practice. We were dependent on what Medicaid was paying then, because we had a high percentage of Medicaid patients.

Conceivably, I could take off as much time as I wanted, but I quickly learned that my partner took quite a beating while I was gone. My income suffered when I wasn't there. I was so tied to the notion of how much we were earning that I felt like I never could be unavailable. I had to do all the business that came along. I couldn't say no.

REECE: *So you were preoccupied with money?*

BARKER: That's right. Because of the weak financial underpinning of the practice, I was preoccupied with the business of the practice. I was in private practice for over three years. I was taking my own call 11 out of 14 nights, and I was taking home about $40,000 a year.

"By the time you hit middle age, you hope to be in a practice that will last until retirement."

REECE: *How did that differ from Group Health? I know you were there as a resident, but did it differ from private practice?*

BARKER: At Group Health, I was paid by the hour and did not have any benefits. It was a busy schedule, but I didn't take call, and I was there a predictable number of hours per week. Sometimes I would stay a little longer than planned, but that was within my control. I didn't worry about the business of the practice at all. I didn't worry about collections or cash flow or contracts or employee negotiations. I was concerned only with the nurses and other doctors I worked with and my patients.

REECE: *I imagine most Group Health physicians enjoy that milieu because that was precisely the environment they chose. If you know the rules and what you're getting into up-front, the practice meets your expectations.*

BARKER: That's the strength of that organization and other organizations like it, especially if the financial underpinning of the group is secure.

Aspen Medical Group is a little different, but it has a large amount of prepaid work come through Share Health Plan. For a long time, Aspen enjoyed the kind of stable, predictable practice environment that Group Health did. But from 1985 through 1988, there was a battle among the HMOs in town—price cutting and competitive financing between the plans—and a number of plans experienced losses during that time.

Aspen's arrangement with Share made it easy for Share to pass along those financial difficulties to Aspen. So the stability I had enjoyed at Group Health evaporated. The number of nurses dropped; the number of doctors per clinic dropped; and the workload of each doctor grew. Plus, there was a pay cut six months after I started there, although the original pay was subsequently reinstated.

REECE: *You said earlier that you were on the Aspen's compensation committee for physicians. Did you have to make difficult decisions?*

BARKER: Every meeting was difficult. There was a time when I'm not sure the committee accomplished anything. Compensation discussions became politically partisan, and the different specialties dug in their heels to protect their own turf. We tried to duplicate market conditions by separating different specialties according to what they seemed to be earning in different segments of the market, but it was impossible to make any changes without creating tremendously bad feelings between the specialty groups. In the end, when I resigned, I felt we were at a standstill in terms of trying to divide the money more equitably.

REECE: *Do you agree in principle with the new resource-based relative value scale?*

BARKER: I do, but as an internist, I'm totally biased by the fact that I'm part of a group that tends to benefit the most from it. What I like about it comes in large part from what I read in a few journals

continued

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and what the American Society of Internal Medicine tells me about it. I know the society is a very strong lobbying group for the resource-based relative value scale. So far, I haven't heard anything bad about it. I know the surgical subspecialties feel differently.

REECE: *What did you like about Aspen?*

BARKER: Aspen has an excellent group of doctors. It has enjoyed great success in recruiting top people from different residencies and locations around town. The specialty consultations both within and without the group are good. Aspen was more flexible than Group Health in allowing the primary care doctors to refer their patients to the most appropriate specialists or locations. That worked well from a practice standpoint, but it probably had a negative financial impact on the organization. People I worked with were friendly and cooperative. The only reason I left Aspen was because of this churning, this unpredictability. I learned something about myself there, too. I was trying to be a politician and a manager, and I found myself to be impatient and fearful of changes. I'm comfortable, at least for the moment, turning my back on that aspect of medicine.

REECE: *Since January 1989 you've been in a new setting, Hennepin Faculty Associates. What attracted you to that group?*

BARKER: It is a group with a broader patient care mission. Research and teaching are important activities of the group. Hennepin Faculty Associates also has a broader financial base. It has no exclusive contracts with any of the prepaid plans, and it doesn't have any capitated prepaid contracts at all—everything is done fee-for-service. The nature of the contract between Hennepin County and the group seems to be one of mutual cooperation and sharing of profits rather than an adversarial relationship.

REECE: *How important was the academic element to you?*

BARKER: I don't know yet. There's enough diversity among the group in our office that I'm not preoccupied about medical education. I'm spending one day a week in the Hennepin County Medical Center's clinic and one afternoon a month with some residents at a nursing home. I see that as a beginning of my educational involvement.

When I was with Aspen, I had the feeling that we were being asked to see more and more patients every day as money got tight and the treadmill was speeding up. I had the sense that mediocrity was at arm's length, and I didn't feel comfortable with that. I had this image of being at my retirement party and hearing doctor after doctor say of me: "Boy, was he efficient." I thought before I got on the retirement track, I should develop other more memorable, worthwhile qualities. At least in a stereotypic way, educational programs insist on high quality of service.

REECE: *How does the payment mechanism affect the quality of care? When you're out there in the trenches, how does this constraining environment affect quality?*

"I've been surprised to find that I am a commodity. . . a bargaining chip."

BARKER: I honestly can't think of any time when external financial factors influenced my decisions about an individual patient. When I was in practice in a small office on West 7th Street in St. Paul, one of our major contracts was with HMO Minnesota. We were so tight to the line financially that I was very aware of places where we could lose money. We lost $4,000 to $5,000 each year with our HMO Minnesota contract. But again, I don't recall changing any decision about a patient because of the knowledge that we were close to the line with that group.

On the other hand, I certainly

didn't have any qualms about discontinuing the contract and losing the patients that were with HMO Minnesota when I realized I was losing 10 percent of my salary each year with that contract. The work environment wore me down, but it didn't alter my treatment of patients.

Where I am now I don't have any capitated business whatsoever, and I can't say that I'm practicing any differently. I still like to get people out of the hospital in a reasonable amount of time.

REECE: *Could you describe your current practice—the size of your group, whether you're growing, what your patient mix is?*

BARKER: Hennepin Faculty Associates is a huge organization—about 240 doctors. It's divided up into functional units. I'm with a group of four general internists. We share call and hospitalize primarily at Metropolitan-Mount Sinai Medical Center. To varying degrees, we play limited roles in the medical education program at Hennepin County Medical Center. As the residency program moves from Mount Sinai to Metropolitan Medical Center, we'll be working with that group as well. I'm in the office five days a week, and I take call one weekend a month and one day a week. We're seeing anywhere from 100 to 150 new patients a month. We work with Metro Health Plan, the HMO for Hennepin County. We do work as consultants for HMO Minnesota, and we work with PHP.

"I was trying to be a politician and a manager, and I found myself to be impatient and fearful of changes."

REECE: *So you're in an expanding downtown practice. That defies the conventional wisdom. Downtown practices are supposed to be declining.*

BARKER: That's true. Most downtown physicians are having trouble maintaining patient volume and financial security. Perhaps our volume is up because we have a heavier Medicaid and Medicare load.

REECE: *In taking this tour through the various forms of practice in the Twin Cities, what have you learned about yourself?*

BARKER: I've learned that in spite of the ups and downs of medical practice organizations and finances, I'm still most happy doing what medical school trained me to do and that is to care for patients and their families. I've come to value a solid underpinning for my practice, so I can concentrate on the part of medicine I know best—seeing patients. ■

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HENNEPIN COUNTY MEDICAL CENTER/HENNEPIN FACULTY ASSOCIATES

CALENDAR OF MEDICAL EVENTS

September 21-22, 1989

TWELFTH ANNUAL TRAUMA & CRITICAL CARE SEMINAR

Brian Mahoney, MD, and Arthur Ney, MD, Co-Chairmen
Hennepin County Medical Center, Minneapolis

This conference is designed for primary care physicians, general surgeons and emergency medicine specialists. It will include didactic presentations, small group sessions and practical workshops.

DAY I

8:00 INITIAL ASSESSMENT, STABILIZATION, AND MANAGEMENT
–Melvin Bubrick, MD, Moderator

- Trauma Networking
- Initial Assessment and Resuscitation
- Severe Head Injury
- Cervical Spine Injuries
- Chest Injuries
- Abdominal Trauma

11:00 LUNCH AT THE NORMANDY INN
Medical Care Delivery in Wartorn Afghanistan
–John McGill, MD

1:00 - 2:30 TRACK A: Resuscitation and Stabilization
TRACK B: Cases from the Real World

2:50 - 5:00 PRACTICE STATIONS

DAY II

8:00 SPECIAL ISSUES IN TRAUMA CARE
–James Andrisevic, MD, Moderator

- Renal Failure in Trauma Patients
- Trauma in Pregnancy
- Farming Injuries
- Burns
- Pediatric Multiple Trauma
- Eye Injuries

11:00 LUNCH AT THE NORMANDY INN
Disaster Assistance to Armenian Earthquake Victims
–Allan Collins, MD

1:00 - 2:30 TRACK C: Special Issues
TRACK D: ICU Issues

2:50 - 5:00 PRACTICE STATIONS

This program has been approved for 14.25 hours of AMA Category I credit and AAFP Prescirbed credit. Application has been submitted to the American College of Emergency Physicians for Category I credit.

October 27, 1989

CLINICAL CARDIOLOGY 1989: Recent Advances

Scott Sharkey, MD, Chairman
Hennepin County Medical Center, Minneapolis

8:30 UNSTABLE ANGINA: NEW CONCEPTS OF PATHOLOGY AND TREATMENT
—Scott Sharkey, MD

9:10 PERSPECTIVE ON ANTIARRHYTHMIC THERAPY FOR CHRONIC VENTRICULAR ECTOPY
—Morrison Hodges, MD

10:00 IDENTIFICATION AND TREATMENT OF PATIENTS AT RISK FOR EMBOLIZATION FROM LEFT VENTRICULAR THROMBUS
—Richard Asinger, MD

11:05 STROKE PREVENTION IN PATIENTS WITH ATRIAL FIBRILLATION
—Robert Hart, MD
Assistant Professor of Medicine
Department of Medicine (Neurology)
University of Texas Health Science Center
San Antonio, Texas

AFTERNOON

1:15 THROMBOLYTIC THERAPY FOR ACUTE MYOCARDIAL INFARCTION: LESSONS FROM THE MAJOR CLINICAL TRIALS
—Alan Guerci, MD
Associate Professor of Medicine
Coronary Care Unit, Johns Hopkins University
Baltimore, Maryland

2:15 CLINICAL IMPORTANCE OF SYSTOLIC AND DIASTOLIC HEART FAILURE
—Steven Goldsmith, MD

3:10 CASE PRESENTATIONS AND DISCUSSION ON UNSTABLE ANGINA AND MYOCARDIAL INFARCTION
—Scott Sharkey, MD; Steven Goldsmith, MD

4:00 ADJOURN

This program has been approved for 6.00 hours of AMA Category I credit. Application has been submitted to the American Academy of Family Physicians for Prescribed credit.

OFFICE OF
ACADEMIC
AFFAIRS

Hennepin County Medical Center
HENNEPIN HCMC

For further information, contact the Office of Academic Affairs
701 Park Avenue, Suite 4512, (Mail Code #865), Minneapolis, MN 55415; 612/347-2075

CME IN MINNESOTA

Provided through the MMA Medical Education Subcommittee on CME Resources

For assistance with scheduling meetings or for information on future medical meetings and CME courses at the state and national level, please contact the MMA office: 2221 University Avenue SE, Suite 400, Minneapolis, Minnesota 55414; (612) 378-1875. Information for each entry is arranged by date; name of program; primary sponsor; location; contact person.

SEPTEMBER 1989

8-9 **Mayo Surgical Symposium** Mayo Clinic/Mayo Foundation; Mayo Clinic, Rochester, Minnesota. CONTACT: Rita Kunz, Mayo Clinic, Postgraduate Courses, 200 First Street SW, Rochester, Minnesota 55905; (507) 284-2509.

11-12 **7th Annual Occupational Health and Safety Institute** St. Paul-Ramsey Medical Center; St. Paul-Ramsey Medical Center, St. Paul, Minnesota. CONTACT: Bonnie Young, 640 Jackson Street, St. Paul, Minnesota 55101; (612) 221-3977.

11-13 **Partners in Managing Type II Diabetes** International Diabetes Center; International Diabetes Center, Park Nicollet Medical Foundation, Minneapolis, Minnesota. CONTACT: Cindy Poppitz, 5000 West 39th Street, Minneapolis, Minnesota 55416; (612) 927-3393.

14 **Topics in Pediatric Emergency Medicine** Minneapolis Children's Medical Center; Minneapolis Children's Medical Center, Minneapolis, Minnesota. CONTACT: Debra Bowman, Medical Education Department, Minneapolis Children's Medical Center, 2525 Chicago Avenue South, Minneapolis, Minnesota 55404; (612) 863-6206.

14-15 **5th Annual Hospital-based Nutrition Support Conference, Nutrition and Organ Function** University of Minnesota CME; Sheraton Midway Hotel, St. Paul, Minnesota. CONTACT: Pat Morandi, Office of CME, Box 202, UMHC, 420 Delaware Street SE, Minneapolis, Minnesota 55455; (612) 626-5525.

15 **Pediatric Emergency Assessment Triage and Intervention** Minneapolis Children's Medical Center; Minneapolis Children's Medical Center, Minneapolis, Minnesota. CONTACT: Debra Bowman, Medical Education Department, Minneapolis Children's Medical Center, 2525 Chicago Avenue South, Minneapolis, Minnesota 55404; (612) 863-6206.

15-16 **Benign Prostatic Hyperplasia: New Trends in Treatment** University of Minnesota CME; Mayo Memorial Auditorium, East Bank campus, Minneapolis, Minnesota. CONTACT: Pat Morandi, Office of CME, Box 202, UMHC, 420 Delaware Street SE, Minneapolis, Minnesota 55455; (612) 626-5525.

15-16 **Pediatric Advanced Life Support (PALS)** Minneapolis Children's Medical Center; Minneapolis Children's Medical Center, Minneapolis, Minnesota. CONTACT: Debra Bowman, Medical Education Department, Minneapolis Children's Medical Center, 2525 Chicago Avenue South, Minneapolis, Minnesota 55404; (612) 863-6206.

15-16 **General Laser Surgery: A"Hands-On" Training Program** Abbott Northwestern Hospital; Abbott Northwestern Hospital, Minneapolis, Minnesota. CONTACT: Tim Schuh, CME Office, Abbott Northwestern Hospital, 800 East 28th Street, Minneapolis, Minnesota 55407; (612) 863-5461.

15-17 **12th Annual Scientific Symposium of the American Medical Directors Association: Competent and Effective Medical Direction** University of Minnesota CME; Holiday Inn Downtown, Minneapolis, Minnesota. CONTACT: Pat Morandi, Office of CME, Box 202, UMHC, 420 Delaware Street SE, Minneapolis, Minnesota 55455; (612) 626-5525.

16 **Saturday Sports Medicine Symposium** Governor's Council on Physical Fitness and Sport; Lakeview Memorial Hospital, Stillwater, Minnesota. CONTACT: Robert Johnson, M.D., 5 West Lake Street, Minneapolis, Minnesota 55408; (612) 824-1647.

16-17 **Neurology** The Minnesota Society of Neurological Sciences; Holiday Inn Metrodome, Minneapolis, Minnesota. CONTACT: Bernd Scheithauer, M.D., Department of Pathology, Mayo Clinic, Rochester, Minnesota, 55905; (507) 285-6606.

18 **Team Management of Diabetes Mellitus** International Diabetes Center; International Diabetes Center, Park Nicollet Medical Foundation, Minneapolis, Minnesota. CONTACT: Cindy Poppitz, International Diabetes Center, 5000 West 39th Street, Minneapolis, Minnesota 55416; (612) 927-3393.

18-20 **4th International Symposium on Organ Procurement and Preservation** University of Minnesota CME; Hyatt Regency Hotel, Minneapolis, Minnesota. CONTACT: Pat Morandi, Office of CME, Box 202, UMHC, 420 Delaware Street SE, Minneapolis, Minnesota 55455; (612) 626-5525.

20-21 **19th Annual Mayo Clinic Pediatric Days** Mayo Clinic/Mayo Foundation; Mayo Clinic, Rochester, Minnesota. CONTACT: Rita Kunz, Mayo Clinic, 200 First Street SW, Rochester, Minnesota 55905; (507) 284-2509.

Health One Continuing Medical Education

September 13
"Urinary Stones" by Ali Hakim, M.D., Health Central of Buffalo – 5:30 p.m.

September 13
Practice Management Seminar – "Physician Recruitment" – 6:00-8:00 p.m. – United Conference Center

September 14
"Depression" by Deane Manolis, M.D. – 12:00 noon, Sioux Valley Hospital, New Ulm, MN

September 26
"Abnormal Pap/Human Papilloma Virus" by John Savage, M.D. – River Falls Area Hospital – 7:30 a.m.

September 27
Physician-to-Physician Referral Program Seminar – David Pearce Snyder, Consulting Futurist – United Hospital – 5:30 p.m.

October 7
Practice Opportunity Fair – Metropolitan-Mount Sinai Medical Center/Phillips Campus – 8:00 a.m.-2:00 p.m. An opportunity for residents and clinical fellows to explore recruitment opportunities in the midwest, as well as receive educational information concerning the business aspects of medical practice.

October 12
"Low Back Pain" by Robert Wengler, M.D. – 12:00 noon, Sioux Valley Hospital, New Ulm, MN

October 14
Health One Oncology Symposium – 8:30 a.m.-4:00 p.m. Holiday Inn Downtown, Minneapolis

October 14
Current Trends in Ophthalmology – Metropolitan-Mount Sinai Medical Center Phillips Eye Institute

October 20
United Cardiology Conference and Jesse E. Edwards Lectureship – Conference Center – United and Children's Heart Lung Building

For further information, contact Beth Murphy, CME Manager, Medical Affairs Division, Health One. (612) 574-7716.

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21-22 **12th Annual Trauma and Critical Care Seminar** Hennepin Faculty Associates; Hennepin County Medical Center, Minneapolis, Minnesota. CONTACT: Eugenia Kassar, Hennepin Faculty Associates, 701 Park Avenue, Suite 4220, Minneapolis, Minnesota 55415; (612) 347-2075.

21-22 **2nd International Congress on Pancreatic and Islet Transplantation** University of Minnesota CME; Hyatt Regency Hotel, Minneapolis, Minnesota. CONTACT: Pat Morandi, Office of CME, Box 202, UMHC, 420 Delaware Street SE, Minneapolis, Minnesota 55455; (612) 626-5525.

22 **Northwestern Pediatric Society Annual Meeting** Northwestern Pediatric Society; Rochester, Minnesota. CONTACT: John Balfanz, M.D., 2333 North Smith Avenue, St. Paul, Minnesota 55012; (612) 227-7806.

22 **Women in Transition** St. Paul-Ramsey Medical Center; Earle Brown Center, St. Paul, Minnesota. CONTACT: Bonnie Young, 640 Jackson Street, St. Paul, Minnesota 55101; (612) 221-3977.

22 **Current Concepts of Cardiology** Abbott Northwestern Hospital; Abbott Northwestern Hospital, Minneapolis, Minnesota. CONTACT: Education Services, Suite 60, Minneapolis Heart Institute Foundation, 920 East 28th Street, Minneapolis, Minnesota 55407; (612) 863-3979.

22-24 **14th Annual Fall Continuing Education Seminar** Minnesota Academy of Physician Assistants; Holiday Inn, Detroit Lakes, Minnesota. CONTACT: John O'Brien, P.A.-C., 2103 Cohansey Boulevard, Roseville, Minnesota 55113; (612) 627-4253.

23 **Minnesota Radiological Society Annual Meeting** Minnesota Radiological Society; Hotel Sofitel, Bloomington, Minnesota. CONTACT: Deborah Day, M.D., University of Minnesota Hospital, Department of Radiology, Box 292, Harvard at East River Road, Minneapolis, Minnesota 55455; (612) 626-6413.

25-29 **Radiology 1989: Neuro and Musculoskeletal Radiology** University of Minnesota CME; Hyatt Regency Hotel, Minneapolis, Minnesota. CONTACT: Pat Morandi, Office of CME, Box 202, UMHC, 420 Delaware Street SE, Minneapolis, Minnesota 55455; (612) 626-5525.

29 **Duluth Clinic Oncology Conference** The Duluth Clinic/St. Mary's Medical Center; Fitger's Spirit of the North Theater, Duluth, Minnesota. CONTACT: James Brueggemann, M.D., 400 East Third Street, Duluth, Minnesota 55811; (218) 722-8364, Ext. 179.

29 **Chemical Exposures** St. Paul-Ramsey Medical Center; St. Paul-Ramsey Medical Center, St. Paul, Minnesota. CONTACT: Bonnie Young, 640 Jackson Street, St. Paul, Minnesota 55101; (612) 221-3977.

OCTOBER 1989

2-3 **Advanced Trauma Life Support** Hennepin Faculty Associates; Hennepin County Medical Center, Minneapolis, Minnesota. CONTACT: Eugenia Kassar, 701 Park Avenue, Suite 4220, Minneapolis, Minnesota 55415; (612) 347-2075.

2-12 **Resuscitation Course** Hennepin Faculty Associates, Hennepin County Medical Center, Minneapolis, Minnesota. CONTACT: Eugenia Kassar, 701 Park Avenue, Suite 4220, Minneapolis, Minnesota 55415; (612) 347-2075.

4-7 **Principles of Colon and Rectal Surgery** University of Minnesota CME; Mayo Memorial Auditorium, East Bank campus, Minneapolis, Minnesota. CONTACT: Pat Morandi, Office of CME, Box 202, UMHC, 420 Delaware Street SE, Minneapolis, Minnesota 55455; (612) 626-5525.

5-6 **Annual Ob/Gyn Seminar** University of Minnesota CME; Holiday Inn Downtown, Minneapolis, Minnesota. CONTACT: Pat Morandi, Office of CME, Box 202, UMHC, 420 Delaware Street SE, Minneapolis, Minnesota 55455; (612) 626-5525.

5-6 **HCMC Medical Examiner Annual Forensic Science Seminar** Hennepin Faculty Associates; Hennepin County Medical Center, Minneapolis, Minnesota. CONTACT: Eugenia Kassar, 701 Park Avenue, Suite 4220, Minneapolis, Minnesota 55415; (612) 347-2075.

5-6 **New Expectations in Pre-Natal Care** Minnesota Perinatal Organization; Breezy Point Resort, Brainerd, Minnesota. CONTACT: Minnesota Perinatal Organization, 2221 University Avenue SE, Suite 400, Minneapolis, Minnesota 55414; (612) 378-1875.

6 **Advanced Concepts in Cardiac Pacing** Abbott Northwestern Hospital; Marriott City Center, Minneapolis, Minnesota. CONTACT: Education Services, Suite 60, Minneapolis Heart Institute Foundation, 920 East 28th Street, Minneapolis, Minnesota 55407; (612) 863-3979.

7 **3rd Annual Tutorial in Pediatric Cardiology for Primary Caregivers** Children's Heart Clinic; Children's Heart Clinic, Minneapolis, Minnesota. CONTACT: Harold Katkov, M.D., 106 Abbott Northwestern Medical Building, Minneapolis, Minnesota 55404; (612) 871-4660.

9-11 **Partners in Managing Type II Diabetes** International Diabetes Center; Park Nicollet Medical Foundation, Minneapolis, Minnesota. CONTACT: Cindy Poppitz, 5000 West 39th Street, Minneapolis, Minnesota 55416; (612) 927-3393.

11-13 **Internal Medicine Review Focusing on Neurology, Oncology, Pulmonary Medicine, Nephrology** University of Minnesota CME; Mayo Memorial Auditorium, East Bank campus, Minneapolis, Minnesota. CONTACT: Pat Morandi, Office of CME, Box 202, UMHC, 420 Delaware Street SE, Minneapolis, Minnesota 55455; (612) 626-5525.

13 **Anxiety Disorders** St. Paul-Ramsey Medical Center; Holiday Inn East, St. Paul, Minnesota. CONTACT: Bonnie Young, 640 Jackson Street, St. Paul, Minnesota 55401; (612) 221-3977.

13 **5th Annual Geriatrics Conference** Hennepin Faculty Associates; Hennepin County Medical Center, Minneapolis, Minnesota. CONTACT: Eugenia Kassar, HCMC, Hennepin Faculty Associates, 701 Park Avenue, Suite 4220, Minneapolis, Minnesota 55415; (612) 347-2075.

13-14 **11th Annual Adolescent Medicine and Health Care Conference** University of Minnesota CME; Earle Brown Center, St. Paul, Minnesota. CONTACT: Pat Morandi, Office of CME, Box 202, UMHC, 420 Delaware Street SE, Minneapolis, Minnesota 55455; (612) 626-5525.

13-14 **Advanced Laser Course for Gynecologists** Abbott Northwestern Hospital; Abbott Northwestern Hospital, Minneapolis, Minnesota. CONTACT: Tim Schuh, CME Office, 800 East 28th Street, Minneapolis, Minnesota 55407; (612) 863-5461.

14 **New Approaches to Locally Advanced Non-small Cell Lung Cancer** University of Minnesota CME; Radisson University Hotel, Minneapolis, Minnesota. CONTACT: Pat Morandi, Office of CME, Box 202, UMHC, 420 Delaware Street SE, Minneapolis, Minnesota 55455; (612) 626-5525.

16-19 **23rd Annual Orthopaedic and Trauma Seminar** Hennepin Faculty Associates; Hennepin County Medical Center, Minneapolis, Minnesota. CONTACT: Eugenia Kassar, HCMC, Hennepin Faculty Associates, 701 Park Avenue, Suite 4220, Minneapolis, Minnesota 55415; (612) 347-2075.

16-20 **Team Management of Diabetes Mellitus** International Diabetes Center; International Diabetes Center, Park Nicollet Medical Foundation, Minneapolis, Minnesota. CONTACT: Cindy Poppitz, International Diabetes Center, 5000 West 39th Street, Minneapolis, Minnesota 55416; (612) 927-3393.

19-21 **5th Ramsey Trauma Conference** St. Paul-Ramsey Medical Center; Holiday Inn East, St. Paul, Minnesota. CONTACT: Bonnie Young, 640 Jackson Street, St. Paul, Minnesota 55101; (612) 221-3977.

20 **Current Clinical Cardiology for Physicians and the 8th Annual Jesse E. Edwards, M.D., Lecture** United Hospital; St. Paul Heart and Lung Conference Center, St. Paul, Minnesota. CONTACT: Sue Mattson, CME Office, Health One, 2810 57th Avenue North, Minneapolis, Minnesota 55430; (612) 574-7895.

20 **2nd Annual Hematology and Oncology Conference** Hennepin Faculty Associates; Hennepin County Medical Center, Minneapolis, Minnesota. CONTACT: Eugenia Kassar, HCMC, Hennepin Faculty Associates, 701 Park Avenue, Suite 4220, Minneapolis, Minnesota 55415; (612) 347-2075.

21 **Saturday Sports Medicine Symposium** Governor's Council on Physical Fitness and Sport; Lakeview Memorial Hospital, Stillwater, Minnesota. CONTACT: Robert Johnson, M.D., 5 West Lake Street, Minneapolis, Minnesota 55408; (612) 824-1647.

27 **3rd Annual Cardiology Conference** Hennepin Faculty Associates; Hennepin County Medical Center, Minneapolis, Minnesota. CONTACT: Eugenia Kassar, HCMC, Hennepin Faculty Associates, 701 Park Avenue, Suite 4220, Minneapolis, Minnesota 55415; (612) 347-2075.

27 **Childhood Lung Disease** University of Minnesota CME; Radisson University Hotel, Minneapolis, Minnesota. CONTACT: Pat Morandi, Office of CME, Box 202, UMHC, 420 Delaware Street SE, Minneapolis, Minnesota 55455; (612) 626-5525.

27-28 **Front-line Neurology: Primary Care Management of Patients with Neurological Problems** Abbott Northwestern Hospital; Marriott City Center, Minneapolis, Minnesota. CONTACT: Tim Schuh, CME Office, 800 East 28th Street, Minneapolis, Minnesota 55407; (612) 863-5461.

28 **7th Annual Clinical Review** Midwestern Heart-Lung Clinic, Ltd; Hyatt Regency Hotel, Minneapolis, Minnesota. CONTACT: Wendy Wolf, 2545 Chicago Avenue South, Suite 611, Minneapolis, Minnesota 55404; (612) 871-4771.

Oct 30-Nov 3 **Team Management of Diabetes Mellitus** International Diabetes Center; International Diabetes Center, Park Nicollet Medical Foundation, Minneapolis, Minnesota. CONTACT: Cindy Poppitz, International Diabetes Center, 5000 West 39th Street, Minneapolis, Minnesota 55416; (612) 927-3393.

NOVEMBER 1989

2-3 **2nd Annual Medical Intensive Care Conference** Hennepin Faculty Associates; Hennepin County Medical Center, Minneapolis, Minnesota. CONTACT: Eugenia Kassar, HCMC, Hennepin Faculty Associates, 701 Park Avenue, Suite 4220, Minneapolis, Minnesota 55415; (612) 347-2075.

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Family Physician/Emergency Room: Full-time salary working weekends, primarily emergency room. Flexibility available. Falls Medical Center, PA, 105 Shorewood Drive, International Falls, Minnesota 56649. Please contact: A. Johnson, M.D., or A. Marc Gorden, M.D., at (218) 283-9431 for more information. (R)

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Physician: GP/FP/EM seeks locations to cover on weekends as locum tenens. Board-certified. FP. Lic. Minn. Write: Box 35132, Minneapolis, Minnesota 55436. (R)

Wausau Medical Center is seeking BE/BC individuals in the following specialties: cardiology, dermatology, family practice, infectious disease, obstetrics/gynecology, pediatrics, and rheumatology. Modern clinic facility located across the street from modern, 300-bed hospital. Full partnership in three years. Easy access to lakes, woods, and mountains. Write (including CV) to: D.K. Aughenbaugh, M.D., Medical Director, Wausau Medical Center, 2727 Plaza Drive, Wausau, Wisconsin 54401. (R)

Family Physician: Dynamic 13-physician, 3-office, single-specialty practice in northwest Minneapolis suburbs seeking additional associate, BE/BC; OB available. Competitive salary, full benefits, reasonable call and hospital rounds schedule. Contact: Dr. Ken Kephart, Northwest Family Physicians; (612) 476-6776. (R)

Urgent: FP/GP physicians needed for practice opportunities within ARIZONA and throughout the United States. Excellent group and solo opportunities available. For additional information, call (602) 990-8080; or send CV in confidence to: Mitchell & Associates, Inc., PO Box 1804, Scottsdale, Arizona 85252. (*R)

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Minnesota's Full Disclosure Requirements on Life Insurance: 45-year-old ns male—$500,000. First year premium—$10,000. Px allocated to benefit and exp.—$761. Balance—$9,239. Interest income—$839. Policy value end of first year—$10,078. (This is the guaranteed cash surrender value) offered by Ameritas Life Insurance Corp., a hundred-year-old Best's rated A+ (superior) company. For further information contact: Greybull Financial Services, 1313 5th Street SE, Minneapolis, Minnesota; (612) 379-3860. (*R)

Family Physician: Immediate opportunity to join well-established, well-respected small group in suburban Minneapolis location. Office located adjacent to progressive, expanding hospital. Associated with only one non-capitated HMO. Unique opportunity with competitive salary and benefits. Contact directly or send inquiries to: Ron Rehmann, M.D., or Tom Spiczka, Chief Administrative Officer, 3960 Coon Rapids Boulevard, Coon Rapids, Minnesota 55433; (612) 422-4600. 3-9/89

Internist/Family Practitioner needed full time to perform pharmaceutical company-sponsored clinical research. Regular hours with some travel, outpatient services, and rewarding career opportunity in the Twin Cities. Call: H. Irving Katz, M.D., (612) 786-0567. 1-9/89

Family Practice: Lucrative family medical practice available in central Michigan. We are seeking a family practitioner for a well-established practice. Coverage with six other board-certified family practitioners and a competitive income guarantee and benefit package are offered. Contact: Suzette Rygiel, MD Resources, 7385 Galloway Road, Suite 200, Miami, Florida 33173; 1-800-327-1585. *1-9/89

Family Practice: Outstanding, diversified family practice opportunities in tri-state region of Illinois, Wisconsin, and Iowa available. Support and resources of a major group with the independence of a private practice. Competitive salary with productivity bonus and extensive benefits package is provided. Contact: Suzette Rygiel, MD Resources, 7385 Galloway Road, Suite 200, Miami, Florida 33173; 1-800-327-1585. *1-9/89

Family Practice Physician wanted to join nonprofit community health center program. Modern facility in rural community in western Upper Peninsula of Michigan. Competitive salary, excellent benefits, loan repayment available. Immediate opening. Send CV to: Donna Jaksic, Executive Director, Upper Peninsula Association of Rural Health Services, 220 West Washington, Suite 430, Marquette, Michigan 49855. 1-9/89

Urologist: Join the nation's largest health care team. VA Medical Center, Lincoln, Nebraska, seeks BC/BE urologist for progressive 180-bed medical center. Licensure any state. Must meet English proficiency requirement. Lincoln is a university town with small-town atmosphere and metropolitan advantages. Lincoln VA Medical Center is affiliated with the University of Nebraska for Urology Resident Program. Comprehensive benefit package. Allowable moving expenses payable. Contact: Dr. Hirai, VA Medical Center, 600 South 70th Street, Lincoln, Nebraska 68510; (402) 489-3802, ext. 6750, or Personnel Service, (402) 486-7819. EOE. *1-9/89

General Internist position in two-person private practice for new graduate or established practitioner. Gain control over your career with reasonable office, hospital, and call arrangements. Amenable to job sharing or parental leave. Early partnership. Call: Mary Jo Connolly, M.D., (612) 489-4249; or send information to: 1901 Lexington Avenue North, St. Paul, Minnesota 55113. 2-10/89

Primary Care Physician: Cambridge Regional Human Services Center, a 300-bed residential facility serving the developmentally disabled, is seeking a BC/BE full- or part-time FP or IM physician. Competitive salary, benefits, and paid malpractice. The state of

Minnesota is an equal opportunity employer. Contact: David Paulson, M.D., Medical Director, Cambridge Regional Center, Cambridge, Minnesota 55008; (612) 689-2121. 2-10/89

We Need Three Forward-looking Physicians (general surgeon, orthopedic surgeon, ob/gyn) to join our growing 16-person group located in the beautiful upper St. Croix River Valley. Just 40 minutes from the fine culture of the Twin Cities, St. Croix Falls, Wisconsin, offers outdoor recreation, nationally acclaimed schools, moderate home prices, and friendly neighbors. Have the best of both worlds! Contact: Tom Hinck, M.D., (715) 483-3221, or Jim Bigogno, Administrator, 1-800-642-1336. 2-10/89

Moonlighting Opportunities are now available at three clinics in the Minneapolis area. Flexible hours and competitive compensation. Contact: Scott Lindblom, Physician Recruiter, Fairview Clinic Services, Suite #390, 600 West 98th Street, Bloomington, Minnesota; (612) 885-6225 or 1-800-842-6469. 2-10/89

Orthopedics, Internal Medicine: A progressive 126-bed, two-hospital system seeks the above specialties to establish practices in the Iron Mountain area of Michigan's beautiful Upper Peninsula. Must be board eligible or certified. Located 100 miles north of Green Bay, Wisconsin, Dickinson County Hospitals has a medical staff of 45 full-time physicians and a total service area population of over 45,000. Diagnostic capabilities include a CTR scanner, CO_2 laser, and a fully staffed special diagnostic department. Contact: John Schon, Administrator, Dickinson County Hospitals, 400 Woodward Avenue, Iron Mountain, Michigan 49801; (906) 779-4500. 2-10/89

Internal Medicine / Ob-Gyn / Family Practice: Several attractive opportunities in Michigan, Wisconsin, and Indiana (many on lakes) for BC/BE physicians. Contact: Bob Strzelczyk to discuss your practice requirements and these positions. *Strelcheck & Associates, Inc.*, 12724 North Maplecrest Lane, Mequon, Wisconsin 53092; 1-800-243-4353. *2-10/89

Training Position Available—Pain Fellowship: Position for PGY4 or PGY5 to participate in a one- or two-year program of clinical pain management and clinical or basic research, sponsored by the Department of Neurology, Hennepin County Medical Center, Minneapolis, Minnesota, beginning July 1, 1990. The program maintains an active outpatient practice and sees hospitalized patients on a referral basis from all departments. Opportunities to learn pharmacological management and other areas related to pain are available. Hennepin County Medical Center is an equal opportunity educator and employer and specifically invites and encourages applications from women and minorities. Applications and CV should be sent to: Miles J. Belgrade, M.D., Director, Hennepin Pain Center, Department of Neurology, Hennepin County Medical Center, 701 Park Avenue South, Minneapolis, Minnesota 55415. 3-11/89

Internist—BC/BE: Very busy, young, solo internist seeking ambitious associate. Family-oriented community on Lake Winnebago with a population of 40,000. No HMOs, PPOs, or subspecialists in internal medicine. Send CVs to: Michael Sergi, M.D., 14 North Main Street, Fond du Lac, Wisconsin 54935. 3-11/89

Family Practice, Aitkin, Minnesota: Family practice group of four young physicians seeking a fifth FP. Well-established and busy practice located in the beautiful lake region of north-central Minnesota. Guaranteed salary and benefits plus incentive plan. Call: Charles Schotzko, M.D., or Floyd Snodgrass, Business Manager, (218) 927-2157; Ripple River Medical Center, 25 4th Street SW, Aitkin, Minnesota 56431. 3-11/89

Family Physician BC/BE: To join 10-physician multispecialty clinic. Young progressive group in modern office two blocks from 110-bed newly remodeled hospital. Excellent schools in economically expanding community. Lakeside living and outstanding recreational opportunities. Competitive salary and generous benefits package.

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Family Physician, Anesthesiologist, Psychiatrist, and ENT to join expanding medical staff and hospital. Comprehensive benefit package and competitive compensation. Contact: Donald Brezicka, Administrator, St. Olaf Hospital, Austin, Minnesota 55912; (507) 437-0405. 3-11/89

A Minneapolis, Non-HMO Internist/Endocrinologist seeks an association with a like-minded internist or a small group of related specialists for purpose of sharing overhead expenses and possible rotation of night and weekend coverage. Practice dedicated to high-quality, high-tech medicine. Send replies to: Minnesota Medicine (836), 2221 University Avenue SE, Suite 400, Minneapolis, Minnesota 55414. 4-12/89

Immediate Opportunity for Internist or Family Practitioner in north-suburban area. Three primary care physicians in well-established practice. Competitive base salary plus incentive pay. Location next to Brookdale Shopping Center. Excellent benefits, which include pension, profit sharing, and malpractice insurance. Contact: Duane Orn, M.D., Northport Medical Center, 5415 Brooklyn Boulevard, Brooklyn Center, Minnesota 55429; (612) 533-8666. (9/89-R)

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OCTOBER 1989

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VASOTEC®

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VASOTEC is available in 2.5-mg, 5-mg, 10-mg, and 20-mg tablet strengths.

Contraindications: VASOTEC® (Enalapril Maleate, MSD) is contraindicated in patients who are hypersensitive to this product and in patients with a history of angioedema related to previous treatment with an ACE inhibitor.

Warnings: *Angioedema:* Angioedema of the face, extremities, lips, tongue, glottis, and/or larynx has been reported in patients treated with ACE inhibitors, including VASOTEC. In such cases, VASOTEC should be promptly discontinued and the patient carefully observed until the swelling disappears. In instances where swelling has been confined to the face and lips, the condition has generally resolved without treatment, although antihistamines have been useful in relieving symptoms. Angioedema associated with laryngeal edema may be fatal. **Where there is involvement of the tongue, glottis, or larynx likely to cause airway obstruction, appropriate therapy, e.g., subcutaneous epinephrine solution 1:1000 (0.3 mL to 0.5 mL), should be promptly administered.** (See ADVERSE REACTIONS.)

Hypotension: Excessive hypotension is rare in uncomplicated hypertensive patients treated with VASOTEC alone. Heart failure patients given VASOTEC commonly have some reduction in blood pressure, especially with the first dose, but discontinuation of therapy for continuing symptomatic hypotension usually is not necessary when dosing instructions are followed; caution should be observed when initiating therapy. (See DOSAGE AND ADMINISTRATION.) Patients at risk for excessive hypotension, sometimes associated with oliguria and/or progressive azotemia and rarely with acute renal failure and/or death, include those with the following conditions or characteristics: heart failure, hyponatremia, high-dose diuretic therapy, recent intensive diuresis or increase in diuretic dose, renal dialysis, or severe volume and/or salt depletion of any etiology. It may be advisable to eliminate the diuretic (except in heart failure patients), reduce the diuretic dose, or increase salt intake cautiously before initiating therapy with VASOTEC in patients at risk for excessive hypotension who are able to tolerate such adjustments. (See PRECAUTIONS, *Drug Interactions* and ADVERSE REACTIONS.) In patients at risk for excessive hypotension, therapy should be started under very close medical supervision and such patients should be followed closely for the first two weeks of treatment and whenever the dose of enalapril and/or diuretic is increased. Similar considerations may apply to patients with ischemic heart disease or cardiovascular disease in whom an excessive fall in blood pressure could result in a myocardial infarction or cerebrovascular accident. If excessive hypotension occurs, the patient should be placed in supine position and, if necessary, receive an intravenous infusion of normal saline. A transient hypotensive response is not a contraindication to further doses of VASOTEC, which usually can be given without difficulty once the blood pressure has stabilized. If symptomatic hypotension develops, a dose reduction or discontinuation of VASOTEC or concomitant diuretic may be necessary.

Neutropenia/Agranulocytosis: Another ACE inhibitor, captopril, has been shown to cause agranulocytosis and bone marrow depression, rarely in uncomplicated patients but more frequently in patients with renal impairment, especially if they also have a collagen vascular disease. Available data from clinical trials of enalapril are insufficient to show that enalapril does not cause agranulocytosis at similar rates. Foreign marketing experience has revealed several cases of neutropenia or agranulocytosis in which a causal relationship to enalapril cannot be excluded. Periodic monitoring of white blood cell counts in patients with collagen vascular disease and renal disease should be considered.

Precautions: *General: Impaired Renal Function:* As a consequence of inhibiting the renin-angiotensin-aldosterone system, changes in renal function may be anticipated in susceptible individuals. In patients with severe heart failure whose renal function may depend on the activity of the renin-angiotensin-aldosterone system, treatment with ACE inhibitors, including VASOTEC, may be associated with oliguria and/or progressive azotemia and rarely with acute renal failure and/or death.

In clinical studies in hypertensive patients with unilateral or bilateral renal artery stenosis, increases in blood urea nitrogen and serum creatinine were observed in 20% of patients. These increases were almost always reversible upon discontinuation of enalapril and/or diuretic therapy. In such patients, renal function should be monitored during the first few weeks of therapy.

Some patients with hypertension or heart failure with no apparent preexisting renal vascular disease have developed increases in blood urea and serum creatinine, usually minor and transient, especially when VASOTEC has been given concomitantly with a diuretic. This is more likely to occur in patients with preexisting renal impairment. Dosage reduction and/or discontinuation of the diuretic and/or VASOTEC may be required.

Evaluation of patients with hypertension or heart failure should always include assessment of renal function. (See DOSAGE AND ADMINISTRATION.)

Hyperkalemia: Elevated serum potassium (> 5.7 mEq/L) was observed in approximately 1% of hypertensive patients in clinical trials. In most cases these were isolated values which resolved despite continued therapy. Hyperkalemia was a cause of discontinuation of therapy in 0.28% of hypertensive patients. In clinical trials in heart failure, hyperkalemia was observed in 3.8% of patients, but was not a cause for discontinuation.

Risk factors for the development of hyperkalemia include renal insufficiency, diabetes mellitus, and the concomitant use of potassium-sparing diuretics, potassium supplements, and/or potassium-containing salt substitutes, which should be used cautiously, if at all, with VASOTEC. (See *Drug Interactions.*)

Surgery/Anesthesia: In patients undergoing major surgery or during anesthesia with agents that produce hypotension, enalapril may block angiotensin II formation secondary to compensatory renin release. If hypotension occurs and is considered to be due to this mechanism, it can be corrected by volume expansion.

Information for Patients:

Angioedema: Angioedema, including laryngeal edema, may occur especially following the first dose of enalapril. Patients should be so advised and told to report immediately any signs or symptoms suggesting angioedema (swelling of face, extremities, eyes, lips, tongue, difficulty in swallowing or breathing) and to take no more drug until they have consulted with the prescribing physician.

Hypotension. Patients should be cautioned to report lightheadedness especially during the first few days of therapy. If actual syncope occurs, the patients should be told to discontinue the drug until they have consulted with the prescribing physician.

All patients should be cautioned that excessive perspiration and dehydration may lead to an excessive fall in blood pressure because of reduction in fluid volume. Other causes of volume depletion such as vomiting or diarrhea may also lead to a fall in blood pressure; patients should be advised to consult with the physician.

Hyperkalemia: Patients should be told not to use salt substitutes containing potassium without consulting their physician.

Neutropenia. Patients should be told to report promptly any indication of infection (e.g., sore throat, fever) which may be a sign of neutropenia.

NOTE. As with many other drugs, certain advice to patients being treated with enalapril is warranted. This information is intended to aid in the safe and effective use of this medication. It is not a disclosure of all possible adverse or intended effects.

Drug Interactions:

Hypotension: Patients on Diuretic Therapy: Patients on diuretics and especially those in whom diuretic therapy was recently instituted may occasionally experience an excessive reduction of blood pressure after initiation of therapy with enalapril. The possibility of hypotensive effects with enalapril can be minimized by either discontinuing the diuretic or increasing the salt intake prior to initiation of treatment with enalapril. If it is necessary to continue the diuretic, provide close medical supervision after the initial dose for at least two hours and until blood pressure has stabilized for at least an additional hour. (See WARNINGS and DOSAGE AND ADMINISTRATION.)

Agents Causing Renin Release. The antihypertensive effect of VASOTEC is augmented by antihypertensive agents that cause renin release (e.g., diuretics).

Other Cardiovascular Agents: VASOTEC has been used concomitantly with beta-adrenergic-blocking agents, methyldopa, nitrates, calcium-blocking agents, hydralazine, prazosin, and digoxin without evidence of clinically significant adverse interactions.

Agents Increasing Serum Potassium: VASOTEC attenuates potassium loss caused by thiazide-type diuretics. Potassium-sparing diuretics (e.g., spironolactone, triamterene, or amiloride), potassium supplements, or potassium-containing salt substitutes may lead to significant increases in serum potassium. Therefore, if concomitant use of these agents is indicated because of demonstrated hypokalemia, they should be used with caution and with frequent monitoring of serum potassium. Potassium-sparing agents should generally not be used in patients with heart failure receiving VASOTEC.

Lithium: A few cases of lithium toxicity have been reported in patients receiving concomitant VASOTEC and lithium and were reversible upon discontinuation of both drugs. Although a causal relationship has not been established, it is recommended that caution be exercised when lithium is used concomitantly with VASOTEC and serum lithium levels should be monitored frequently.

Pregnancy—Category C. There was no fetotoxicity or teratogenicity in rats treated with up to 200 mg/kg/day of enalapril (333 times the maximum human dose). Fetotoxicity, expressed as a decrease in average fetal weight, occurred in rats given 1200 mg/kg/day of enalapril but did not occur when these animals were supplemented with saline. Enalapril was not teratogenic in rabbits. However, maternal and fetal toxicity occurred in some rabbits at doses of 1 mg/kg/day or more. Saline supplementation prevented the maternal and fetal toxicity seen at doses of 3 and 10 mg/kg/day, but not at 30 mg/kg/day (50 times the maximum human dose). Radioactivity was found to cross the placenta following administration of labeled enalapril to pregnant hamsters.

There are no adequate and well-controlled studies of enalapril in pregnant women. However, data are available that show enalapril crosses the human placenta. Because the risk of fetal toxicity with the use of ACE inhibitors has not been clearly defined, VASOTEC® (Enalapril Maleate, MSD) should be used during pregnancy only if the potential benefit justifies the potential risk to the fetus.

Postmarketing experience with all ACE inhibitors thus far suggests the following with regard to pregnancy outcome. Inadvertent exposure limited to the first trimester of pregnancy has not been reported to affect fetal outcome adversely. Fetal exposure during the second and third trimesters of pregnancy has been associated with fetal and neonatal morbidity and mortality.

When ACE inhibitors are used during the later stages of pregnancy, there have been reports of hypotension and decreased renal perfusion in the newborn. Oligohydramnios in the mother has also been reported, presumably representing decreased renal function in the fetus. Infants exposed *in utero* to ACE inhibitors should be closely observed for hypotension, oliguria, and hyperkalemia. If oliguria occurs, attention should be directed toward support of blood pressure and renal perfusion with the administration of fluids and pressors as appropriate. Problems associated with prematurity such as patent ductus arteriosus have occurred in association with maternal use of ACE inhibitors, but it is not clear whether they are related to ACE inhibition, maternal hypertension, or the underlying prematurity.

Nursing Mothers: Milk in lactating rats contains radioactivity following administration of ^{14}C enalapril maleate. It is not known whether this drug is secreted in human milk. Because many drugs are secreted in human milk, caution should be exercised when VASOTEC is given to a nursing mother.

Pediatric Use: Safety and effectiveness in children have not been established.

Adverse Reactions: VASOTEC has been evaluated for safety in more than 10,000 patients, including over 1000 patients treated for one year or more. VASOTEC has been found to be generally well tolerated in controlled clinical trials involving 2987 patients.

HYPERTENSION: The most frequent clinical adverse experiences in controlled trials were: headache (5.2%), dizziness (4.3%), and fatigue (3%).

Other adverse experiences occurring in greater than 1% of patients treated with VASOTEC in controlled clinical trials were: diarrhea (1.4%), nausea (1.4%), rash (1.4%), cough (1.3%), orthostatic effects (1.2%), and asthenia (1.1%).

HEART FAILURE: The most frequent clinical adverse experiences in both controlled and uncontrolled trials were: dizziness (7.9%), hypotension (6.7%), orthostatic effects (2.2%), syncope (2.2%), cough (2.2%), chest pain (2.1%), and diarrhea (2.1%).

Other adverse experiences occurring in greater than 1% of patients treated with VASOTEC in both controlled and uncontrolled clinical trials were: fatigue (1.8%), headache (1.8%), abdominal pain (1.6%), asthenia (1.6%), orthostatic hypotension (1.6%), vertigo (1.6%), angina pectoris (1.5%), nausea (1.3%), vomiting (1.3%), bronchitis (1.3%), dyspnea (1.3%), urinary tract infection (1.3%), rash (1.3%), and myocardial infarction (1.2%).

Other serious clinical adverse experiences occurring since the drug was marketed or adverse experiences occurring in 0.5% to 1% of patients with hypertension or heart failure in clinical trials in order of decreasing severity within each category:

Cardiovascular: Cardiac arrest; myocardial infarction or cerebrovascular accident, possibly secondary to excessive hypotension in high-risk patients (see WARNINGS, *Hypotension*); cardiac arrest, pulmonary embolism and infarction; rhythm disturbances; atrial fibrillation, palpitation.

Digestive: Ileus, pancreatitis, hepatitis or cholestatic jaundice, melena, anorexia, dyspepsia, constipation, glossitis.

Nervous/Psychiatric: Depression, confusion, ataxia, somnolence, insomnia, nervousness, paresthesia.

Urogenital. Renal failure, oliguria, renal dysfunction (see PRECAUTIONS and DOSAGE AND ADMINISTRATION).

Respiratory: Bronchospasm, rhinorrhea, asthma, upper respiratory infection.

Skin. Herpes zoster, pruritus, alopecia, flushing, photosensitivity.

Other: Vasculitis, muscle cramps, hyperhidrosis, impotence, blurred vision, taste alteration, tinnitus.

A symptom complex has been reported which may include fever, myalgia, and arthralgia; an elevated erythrocyte sedimentation rate may be present. Rash or other dermatologic manifestations may occur. These symptoms have disappeared after discontinuation of therapy.

Angioedema: Angioedema has been reported in patients receiving VASOTEC (0.2%). Angioedema associated with laryngeal edema may be fatal. If angioedema of the face, extremities, lips, tongue, glottis, and/or larynx occurs, treatment with VASOTEC should be discontinued and appropriate therapy instituted immediately. (See WARNINGS.)

Hypotension: In the hypertensive patients, hypotension occurred in 0.9% and syncope occurred in 0.5% of patients following the initial dose or during extended therapy. Hypotension or syncope was a cause for discontinuation of therapy in 0.1% of hypertensive patients. In heart failure patients, hypotension occurred in 6.7% and syncope occurred in 2.2% of patients. Hypotension or syncope was a cause for discontinuation of therapy in 1.9% of patients with heart failure. (See WARNINGS.)

Clinical Laboratory Test Findings:

Serum Electrolytes. Hyperkalemia (see PRECAUTIONS), hyponatremia.

Creatinine, Blood Urea Nitrogen. In controlled clinical trials, minor increases in blood urea nitrogen and serum creatinine, reversible upon discontinuation of therapy, were observed in about 0.2% of patients with essential hypertension treated with VASOTEC alone. Increases are more likely to occur in patients receiving concomitant diuretics or in patients with renal artery stenosis. (See PRECAUTIONS.) In patients with heart failure who were also receiving diuretics with or without digitalis, increases in blood urea nitrogen or serum creatinine, usually reversible upon discontinuation of VASOTEC and/or other concomitant diuretic therapy, were observed in about 11% of patients. Increases in blood urea nitrogen or creatinine were a cause for discontinuation in 1.2% of patients.

Hemoglobin and Hematocrit: Small decreases in hemoglobin and hematocrit (mean decreases of approximately 0.3 g % and 1.0 vol %, respectively) occur frequently in either hypertension or heart failure patients treated with VASOTEC but are rarely of clinical importance unless another cause of anemia coexists. In clinical trials, less than 0.1% of patients discontinued therapy due to anemia.

Other (Causal Relationship Unknown): In marketing experience, rare cases of neutropenia, thrombocytopenia, and bone marrow depression have been reported.

Liver Function Tests. Elevations of liver enzymes and/or serum bilirubin have occurred.

Dosage and Administration: *Hypertension:* In patients who are currently being treated with a diuretic, symptomatic hypotension occasionally may occur following the initial dose of VASOTEC. The diuretic should, if possible, be discontinued for two to three days before beginning therapy with VASOTEC to reduce the likelihood of hypotension. (See WARNINGS.) If the patient's blood pressure is not controlled with VASOTEC alone, diuretic therapy may be resumed.

If the diuretic cannot be discontinued, an initial dose of 2.5 mg should be used under medical supervision for at least two hours and until blood pressure has stabilized for at least an additional hour. (See WARNINGS and PRECAUTIONS, *Drug Interactions.*)

The recommended initial dose in patients not on diuretics is 5 mg once a day. Dosage should be adjusted according to blood pressure response. The usual dosage range is 10 to 40 mg per day administered in a single dose or in two divided doses. In some patients treated once daily, the antihypertensive effect may diminish toward the end of the dosing interval. In such patients, an increase in dosage or twice-daily administration should be considered. If blood pressure is not controlled with VASOTEC alone, a diuretic may be added.

Concomitant administration of VASOTEC with potassium supplements, potassium salt substitutes, or potassium-sparing diuretics may lead to increases of serum potassium (see PRECAUTIONS).

Dosage Adjustment in Hypertensive Patients with Renal Impairment: The usual dose of enalapril is recommended for patients with a creatinine clearance >30 mL/min (serum creatinine of up to approximately 3 mg/dL). For patients with creatinine clearance ≤30 mL/min (serum creatinine ≥3 mg/dL), the first dose is 2.5 mg once daily. The dosage may be titrated upward until blood pressure is controlled or to a maximum of 40 mg daily.

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Dosage Adjustment in Heart Failure Patients with Renal Impairment or Hyponatremia. In heart failure patients with hyponatremia (serum sodium <130 mEq/L) or with serum creatinine >1.6 mg/dL, therapy should be initiated at 2.5 mg daily under close medical supervision. (See DOSAGE AND ADMINISTRATION, *Heart Failure*, WARNINGS, and PRECAUTIONS, *Drug Interactions.*) The dose may be increased to 2.5 mg b.i.d., then 5 mg b.i.d. and higher as needed, usually at intervals of four days or more, if at the time of dosage adjustment there is not excessive hypotension or significant deterioration of renal function. The maximum daily dose is 40 mg.

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A JOURNAL OF CLINICAL AND HEALTH AFFAIRS

MINNESOTA MEDICINE

OCTOBER 1989

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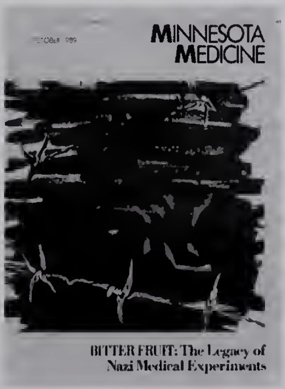


Cover Illustration

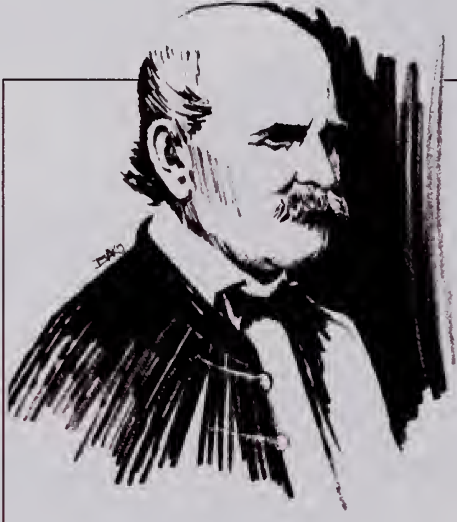
THE HOLOCAUST This month's cover story (page 580) examines physicians' involvement in the torturous and deadly Nazi experiments, and it considers implications for contemporary science and medicine.

The cover illustration is a detail from a painting by Robert O. Fisch, M.D., of Minneapolis, a concentration camp survivor who relives the horror and explains how and why he portrayed those feelings in his art (page 573). Dr. Fisch is a professor of pediatrics and director of the PKU Clinic at the University of Minnesota. He fled Hungary for the United States in 1957 and settled in Minnesota in 1958.

POOR MARKETING DROVE SEMMELWEIS INSANE.

Poor marketing communications skills have always been detrimental to physicians. Take the case of the great Hungarian physician Ignaz Phillip Semmelweis (1818 to 1865). He suffered more than most.

Ironically, the medical community washed its hands of Semmelweis, the physician who instructed his colleagues that disinfecting their hands with calcium chloride solution before surgery saved lives.



Ignaz Phillip Semmelweis (1818-1865) discovered that puerperal infection was reduced when surgeons disinfected their hands.

His findings, which he presented in an unacceptable fashion, were met with skepticism and rejection by the medical community. Semmelweis's sensitive nature crumbled under the ridicule and he eventually lost his mind.

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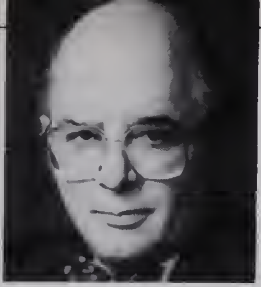

RICHARD L. REECE, M.D.

EDITOR'S NOTEBOOK

Lest We Forget Humanity

For the last 10 years, I've been writing about the politics, social forces, and economic changes transforming relationships between physicians, patients, and payers. Like other physicians, I've been caught up in these swirling and cascading events. In doing so, perhaps I've lost sight of one of the primary roles of physicians in society—to decry man's inhumanity to man.

From time to time in *Minnesota Medicine,* we've examined the plight of the homeless, the victims of torture, the less fortunate. Perhaps I should have written more about such issues of humanity, but the drama of what kind of health care delivery system Minnesota and the nation ought to have has absorbed my attention.

Well, this issue of *Minnesota Medicine* has brought me back to earth. As I admired Dr. Robert Fisch's stunning painting on this month's cover, as I read his moving essay on his personal experience during the Holocaust (page 572), and as I reviewed Beryl Byman's feature story on the bitter legacy of Nazi medical experiments (page 580), I remembered again what happened in World War II and thought about other horrors that have transpired since 1945.

And I thought: "Perhaps that is one of the main roles of the exploding field of biomedical ethics—to remind us to be ever vigilant to our potential cruelties to each other."

In May 1989 the University of Minnesota's Center for Biomedical Ethics held a conference on the meaning of the Holocaust for bioethics, examining, among other things, what we have learned from it. That symposium revisited the killing of more than 6 million Jews in concentration camps, the often-deadly experiments on 1,500 sets of twins, the purposeful weeding out of at least 5,000 "defective" children, and the systematic murder of more than 70,000 mentally ill patients from more than 100 hospitals. That symposium inspired this month's feature story, "Bitter Fruit: The Legacy of Nazi Medical Experiments," and led us to ask Dr. Fisch to share with us his artistic talent and his memories.

> **"Perhaps that is one of the main roles of the exploding field of biomedical ethics—to remind us to be ever vigilant to our potential cruelties to each other."**

When you revisit what happened during the Holocaust, two thoughts may flash through your mind: one, that the old adage "Nothing human disgusts me" is simply not true; and two, that the new technologies of manipulating genes and mapping out the entire human genome have unlimited potential for mischief in the wrong hands. Keep in mind that the Nazi medical atrocities were carried out by the most talented minds in medicine and science with the stated intention of improving the human race.

As conference organizer and director of the Center for Biomedical Ethics, Arthur Caplan, wrote in the university's spring 1989 *Health Sciences* magazine: ". . . it is not the dimension of the killing and the degree of misery and suffering inflicted on Jews, Poles, homosexuals, gypsies, the demented elderly, the mentally ill, the retarded, and prisoners of war that make the Holocaust special. Indeed, other groups—the Armenians and the Cambodians, for example—have experienced mass killing on a staggering scale. What makes the cruelty and murder unique is the fact that they are linked directly and inextricably to medicine and science. The Holocaust was inspired by and administered by scientists and physicians."

Whatever your response, we hope you will agree that one of the functions of a medical journal is to examine our history, our culture, our professional heritage.

In the recounting we can choose to reaffirm our commitment to serve humanity and improve its lot. ■

Caution: Clear and Engaged Mind at Work

REECE: *Dr. Edwards, you have had a long and distinguished career in the fields of pathology and cardiology. Today I would like to talk about the evolution of the field of cardiology during your lifetime, historical figures you've met, landmark points in the modern era of cardiology, and about your Registry of Cardiovascular Disease, one of the world's largest collections of heart specimens and supporting data, at United Hospital in St. Paul.*

How did you get into the field of cardiovascular pathology?

EDWARDS: I was invited to join the Mayo Clinic staff in 1946 following my formal training in pathology and experience as a fellow at the National Cancer Institute, and after four years' experience as a pathologist in the army. When I joined the Mayo Clinic pathology staff, each person did the work of a general pathologist, but each of us also had a special assignment. The field of cardiac pathology happened to be open, so I spent my "extra" time in that field.

It was an interesting time—before heart catheterization was in use as a clinical tool; it already had been started but was not a tool yet. Open-heart surgery was beginning to look promising. For example, when I was a pathology resident at the Mallory Institute of Pathology at Boston City Hospital, just about two miles away from me at the Boston Children's Hospital, the first successful ligation of a ductus arteriosus was done in 1938. This was soon followed by successful ligations around the world. In 1944 in Baltimore, Alfred Blalock and Helen Taussig established the so-called Blalock-Taussig operation for the tetralogy of Fallot. These operations gave us the notion that we could operate close to the heart. During World War II, Dwight Harkins, an American army surgeon in England, operated on about 150 soldiers who had missiles in or near the heart. He demonstrated that you could expose the exterior of the heart and operate close to it without killing the patient.

Edwards *to page 600*

JESSE E. EDWARDS, M.D.

In my 15 years as editor of Minnesota Medicine, I've often had the privilege and honor of passing judgment on papers submitted by world-renowned cardiac pathologist Jesse Edwards, his protégés, and his students. I've always read these papers with pleasure, for they reflect Jesse's special gift for clarity. In all of these papers, I've sensed a clear and engaged mind at work in the background, pushing knowledge forward.

Jesse's titles point out to readers exactly where he and they are going. In introducing his articles, he stakes out directions and destinations he has in mind. Throughout these roads of prose, he erects signposts to direct you on your journey. And at the end, he tells you you've arrived. Then, for your convenience and just to make sure you know where you've been, he sums up these journeys into that anatomic region known as the heart and the great vessels. When it comes to exploring the highways and byways of the cardiovascular system, Jesse is a superb tour guide.

This interview is a leisurely trip through Jesse's medical career. You won't hear much about his preparatory years in this interview. What you will hear are his thoughts and impressions about the years that followed—1946 to 1960 at the Mayo Clinic, and 1960 to the present at Miller and United hospitals in St. Paul. These were the years Jesse toiled incessantly and single-mindedly at his lifework of defining, teaching, and cataloguing the pathology of the heart and the great vessels.

This interview is more than an itinerary of Jesse's career and work. He also tells you why American cardiology and heart surgery have dominated the world scene, why Minnesota has assumed such prominence in heart work, why pathology is so important to physicians in their formative years, why a collection of past hearts can serve as an active reservoir of learning for present physicians, and why a clear mind and clear expression are so fundamental in furthering the cause of science.

Enjoy your journey, which coincides with United Hospital's 8th Annual Jesse E. Edwards, M.D., Lecture October 20 (see CME listings, page 608).

A Heart-to-Heart Talk with an English Friend

ROBERT H. ANDERSON, M.D.

REECE: *Dr. Anderson, you're a professor of cardiac morphology at the National Heart and Lung Institute, and you're centered at the Brompton Hospital in London, England. How long have you held that position?*

ANDERSON: I've been at the Brompton Hospital since 1974. Initially, I was funded as a senior lecturer with money supplied by the British Heart Foundation. In 1977 the Joseph Levy Foundation put up sufficient money to endow my position for my lifetime, so I became a reader in the University of London in 1977. In 1979 I was promoted to my present position as professor at the University of London.

REECE: *In the course of your career, you've worked closely with both cardiologists and cardiac surgeons to define the true nature and evolution of congenital heart disease. What do you regard as the world's leading centers in this type of work?*

Dr. Robert Anderson and I are old friends, so I am comfortable describing his character and characteristics:

► *Robert is a scholar. He is exceedingly proud of his high academic position as professor of pediatric cardiac morphology at Britain's National Heart and Lung Institute. He enjoys rubbing minds with other scholars. And he likes nothing more than writing textbooks or lecturing at academic centers around the world.*

► *Robert is a moralist, especially when it comes to health systems. He is a thorough-going social liberal, and he is proud of it. He believes in the philosophy of the National Health Service, namely, that the good of society takes precedence over the individual.*

► *Robert is a believer in facts—both those you can hold in your hand and those you can accumulate. He believes a heart in the hand, or a whole museum of hearts on which you can lay your hands, is worth a ton of speculation based on hearsay or indirect clinical evidence. Similarly, he believes a ton of data, gathered from leading cardiac centers around the world, is worth much more than isolated snippets of information from scattered institutions or from random clinical reports.*

► *Robert is very much the traditional Englishman. He espouses the virtues of economy, empiricism, and keeping a stiff upper lip. The most striking feature of British medicine is that the English do less of everything—spending money, performing surgery, prescribing drugs, and doing technological procedures. This economy is partly due to rationing imposed by the system, but it is also due to inherent conservatism that says one ought to do only what works.*

And yet, even in the face of his fervent belief in things British, Robert clearly enjoys his multiple forays into America and its heartland. After all, he spends two to six months a year in America. He lectures us, and he learns from us. For a scholar, that is a fair enough exchange.

ANDERSON: If you'd asked me that question 15 years ago, I would have said the cutting edge of pediatric cardiology was centered in well-known places such as the Mayo Clinic. Mayo pioneered the treatment of congenital malformations, as did other well-known centers in the United States. Johns Hopkins obviously stands out because of the presence of Alfred Blalock and Helen Taussig.

But over the last 15 years there has been a major shift in emphasis. I would now say the leaders in pediatric cardiology are equally divided between Europe and the United States. The leading centers in the United States have certainly changed. I would say the foremost U.S. center is now the University of Alabama in Birmingham, which I visit annually. Our own center in London, together with the Hospital for Sick Children, also in London, stands out as a world center.

continued

The Hospital for Sick Children in Toronto is another leader. Toronto combines very well the research and clinical aspects of congenital heart disease. In many ways, Toronto reflects the contribution of Dick Rowe, who died earlier this year. Some people would say that Toronto's rise coincided with Dick Rowe's move there from Johns Hopkins.

REECE: *You seem to make a number of annual visits to the United States. Where do you go?*

ANDERSON: Each year I go to Birmingham. I have a very good working and professional friendship with John Kirklin, who, as you know, was previously at the Mayo Clinic. He moved to Birmingham in 1967. I first met Dr. Kirklin in 1974 at a conference in Europe when I was just starting my own career. He's had a considerable influence on what I've done since then. Since 1984 I've visited Birmingham for two or three days every year. I also have close contacts with the University of North Carolina in Chapel Hill. I'm on the surgical faculty there, and I have a good collaborative relationship with Benson Wilcox, their chief of cardiothoracic surgery.

But perhaps my most important link in the United States is at the University of Pittsburgh, where I hold a visiting professorship. My connection with Pittsburgh goes back to 1977, when I first met Bob Zuberbuhler, their chief of pediatric cardiology. He spent six months in my department on sabbatical in London. He then made it possible for me to spend a month in Pittsburgh in 1979. Since 1984 I've been able to come to the United States for two to six months during the summer. Pittsburgh has been a base for me when I'm in the United States.

REECE: *Why has Dr. Kirklin been such a leader in Birmingham?*

ANDERSON: One could say that Dr. Kirklin has been on the frontiers of cardiac surgery since its inception. We all know open-heart surgery had its birth in Minnesota. It was really Kirklin who made the heart-lung machine, pioneered by John Gibbon of Philadelphia, work at the Mayo Clinic. Meanwhile, 70 miles up the road, Dr. Walton Lillehei was doing his cross-circulation techniques at the University of Minnesota.

Kirklin moved in 1967 from the Mayo Clinic to Birmingham, where he has continued to apply science to the factors of surgery. In my eyes, he is without question the greatest scientific clinician in the era of cardiac surgery. He instituted its birth, and he still is doing the most wonderful work. His analysis of data—the rigor he brings to the analysis—is exemplary. The way he collects the data, the way he analyzes it, and the way he extracts from it the factors that will be of value in future cases is truly wonderful.

"We all know open-heart surgery had its birth in Minnesota."

REECE: *You used the word "rigor." You seem to be applying rigor yourself to codifying the nomenclature of cardiology in setting up collaborative studies in the United Kingdom and elsewhere. In general, you are applying an encyclopedic approach to rationalizing congenital heart disease. As part of your efforts, you've written a number of universally used textbooks. Could you describe for us your textbooks?*

ANDERSON: The most all-encompassing book we've done is a textbook of pediatric cardiology, in two volumes. The textbooks devoted to pediatric cardiology are relatively few. Perhaps the most established is Moss and Adams' *Pediatric Cardiology,* published by Williams and Wilkins, which has now reached its fourth edition. We felt there was a need for a European textbook to counterbalance Moss and Adams' book, which is very American in flavor.

So, three London clinicians (my colleague Elliott Shinebourne at the Brompton Hospital, Fergus Macartney, professor of pediatric cardiology at Great Ormond Street, and Michael Tynan, professor of pediatric cardiology at Guy's Hospital) and I set out to produce a textbook of pediatric cardiology. The book took 10 years of hard work and was eventually published in 1987 by Churchill Livingstone. It is probably the most important book I've produced. I've also produced two books in collaboration with Anton Becker, who trained for one year in Minnesota with Dr. Jesse Edwards in 1969. These books, published by Gower, feature color illustrations and short accompanying text and emphasize the descriptive approach to both cardiac pathology and cardiac anatomy.

We believe that in recent years too much emphasis has been given to concepts of development rather than to pure description. So we tried to get back to pure description and to simplify what has become an unduly complex approach to the topic.

I also produced another book with Benson Wilcox on the surgical anatomy of the heart. In this book, again published by Gower, we try to look at the heart's anatomy through the combined eyes of the surgeon and the anatomist, since I am trained as an anatomist, not a pathologist. We tried to illustrate the lesions as they would be seen by the surgeon in the operating room. The book has been very successful.

REECE: *Speaking of descriptive anatomy and pathology, one of the enduring figures in both fields is another Minnesotan you mentioned, Dr. Jesse Edwards, who made his mark at Mayo and then at Miller and United hospitals in St. Paul (see accompanying interview, page 564).*

ANDERSON: Indeed. Dr. Edwards stands out as a figure of magnitude comparable to John Kirklin. I've not had the good fortune to train with Dr. Edwards, but I have had the privilege and pleasure to meet with him on several occasions. Dr. Edwards has continued his pioneering work throughout the years and still produces truly scientific articles based on descriptive pathology. Anton Becker and I have tried to model ourselves on the pattern he set. We describe things as we see them and avoid undue speculations.

REECE: *Has the pendulum swung too far from the basics of descriptive anatomy to the fields of molecular biology?*

ANDERSON: Yes, although I would not in any way decry the importance of molecular biology. We must know what is going on at the molecular level. But, in cardiology, we're beginning to lose sight of the importance of straightforward anatomy. It would be foolish, for example, to say that we know all there is to know about the descriptive anatomy of the heart and the descriptive anatomy of acquired cardiac pathology. Yet huge amounts of money are being made available for molecular techniques. The danger is that we're going to have no people to carry on the type of work that Jesse Edwards exemplifies in the United States, the type of work Becker and I have tried to do in Europe. Too many people are being seduced by the glamour of molecular techniques and often do not have a basic understanding of the heart. Certainly the ultra-structural aspects are important, but we musn't lose touch with the basic anatomy through which we must interpret these newer understandings and insights.

REECE: *I gather also that you believe a dynamic relationship between descriptive morphologists, such as yourself, and clinically active cardiologists and cardiovascular surgeons is essential in moving the field forward.*

ANDERSON: In many ways, these relationships gave my own career its impetus. Before 1974, I was working in a university anatomy department. I had done relatively important work in describing pathways of the conduction tissues in some congenital malformations and in looking at congenital malformations. But it was only when I had the opportunity to work day in and day out with clinical colleagues at the Brompton Hospital, Guy's Hospital, the Hospital for Sick Children in London, and centers throughout Europe that I grasped the fundamental importance of my work to clinicians. It was that day-to-day contact with the clinician and diagnostician that gave me the opportunity to interact and to relate the descriptive anatomy to the features of the heart as seen using the diagnostic techniques. It is so important that the diagnostician and the surgeon understand with absolute certainty the anatomy of the lesions they're trying to diagnose and correct. It was my contact with these people that led us all onward. The success we've achieved has improved both

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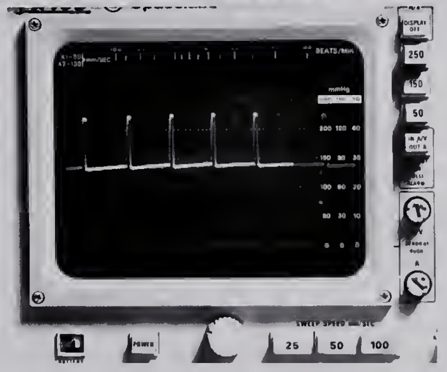

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diagnoses and surgery in the centers with which I've been associated.

REECE: *Didn't your work with Dr. Becker make it possible to correct with surgery certain defects of the conduction system, such as the Wolff-Parkinson-White syndrome?*

ANDERSON: We didn't make the surgery possible, but our research has made it safer. What fascinated me was that we rediscovered things that had been described and forgotten 50 years before. Perhaps some of our most important findings at that time turned out to be rediscoveries rather than true discoveries. We found grossly abnormal dispositions of the atrioventricular nodes and the bundle of His in some complex congenital malformations. When we described these findings in our first papers, the initial review by the "experts" was skeptical. Yet when we looked more closely into it, we found that these very findings had already been described 30 or 40 years previously. We were rediscovering what had been lost in the German literature.

Another formative influence in my life was the year I spent in Amsterdam in 1973, when I worked with Anton Becker, with Michael Janse, an experimental cardiologist, and with Dirk Durrer, the professor of cardiology in Amsterdam. One of the first things Dirk said to me was that the Anglo-Saxons spend all their time rediscovering the German literature, which I found to be very true.

REECE: *You're a believer in the use of multi-institutional collaborative studies to get a sense of the natural history of congenital heart disease. How have you brought this belief to bear in the United Kingdom?*

ANDERSON: I think it's important to look at the need for multicenter studies first. Many of the congenital heart lesions dealt with by general practitioners are relatively rare. Even cardiac centers see only a few cases, so it makes sense to pool our experience and get a broader view of each category of lesions. That will give us a better handle on what is happening to children born with these problems. We are fortunate in the United Kingdom to have a limited number of centers organized within our National Health Service that care for all the children born with congenital malformations within our overall population of 56 million. We have 10 centers that deal with congenital heart disease. Those centers see virtually every case. We've tried to pool the material. Most of it has been done in the centers within London, where we see a significant proportion of the cases.

REECE: *Would you say a coordinated, centralized, and collaborative approach by basic researchers has great social value, too? After all, you can accumulate the latest knowledge on Britain's children in your 10 leading centers. This leads to uniformity in diagnosis and pre-*

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James H. Moller, M.D.—One for the Heart

By Chuck Benda

Minnesota has a long tradition of leadership and excellence in cardiac care and research. One of the chief standard bearers of that tradition is James H. Moller, M.D. Moller, a professor of pediatrics at the University of Minnesota for the past 30 years and former chief of staff at University Hospitals, has devoted much of his energy during the last 10 years to improving the quality of pediatric cardiac care in the Upper Midwest and across the nation.

As chairman of the board and principal investigator of the Pediatric Cardiac Care Quality Assurance Consortium, Moller has led the drive as some 20 participating pediatric cardiac centers from across the country have pooled their data from an ongoing outcomes study to improve their quality of care and reduce their mortality rates.

"This program really got its start in 1978 through a project called the Northern Great Plains Regional Cardiac Program," Moller said. "Since then it has grown into a truly national program. We currently receive data on 15 to 20 percent of all children in the U.S. who undergo either catheterization or surgery for congenital heart disease."

The regional program started, according to Moller, as an effort to improve pediatric cardiac care in Minnesota, parts of Wisconsin, North and South Dakota, and Montana. In the late 1970s, the Bureau of Maternal and Child Health was providing federal funds to pay for cardiac care for children from these states. As insurance companies and other providers eventually assumed the responsibility for paying for such care, the regional directors of the Federal Crippled Children's program decided in 1982 to shift the funding into an outcomes study, in hopes of improving quality of care. With the funds provided, Moller and his colleagues established the Northern Great Plains Regional Cardiac Program.

The first goal of the consortium was to get the five major centers in the area—Mayo Clinic, Minneapolis Children's Hospital, and the universities of Minnesota, Iowa, and Nebraska—involved in the project. In 1985, the consortium began branching out across the region and the nation. Today, major pediatric cardiac care centers from Texas to Florida to Washington, D.C., have joined the consortium.

The consortium analyzes data from 100 percent of the pediatric cardiac cases of the participating centers, according to Moller. Part of the funding comes from the Bureau of Maternal and Child Health. Plus, the participating centers pay $8 for each case report to help defray the cost.

"Each center sends us a copy of the catheterization report, the surgery report, or the death report of every pediatric cardiac case during the year," Moller said. "From that data, we prepare a report that allows every center to see where it stands in relationship to the group."

The cardiologists from the participating centers then meet to go over the results and determine ways to correct any problem areas that show up. The consortium has developed sophisticated data analysis methods that make it possible to identify deviations from the norm and adjust them according to case mix.

"Some centers may operate on a lot of older children," Moller said, "but not on a lot of infants. It's unfair to compare simply on the basis of mortality."

When the data analysis reveals significant deviations from the mean, the cardiologists at the center meet to go over the cases in greater detail to determine the cause.

"Sometimes it may be the age of the patient on which they're operating," Moller said. "In one center, we discovered that an increase in mortality occurred at a time when a strong viral illness was going through the ward."

Although confidentiality is maintained throughout the study, participating centers have been very open and eager to improve their performance. In many cases, mortality rates have dropped significantly, and recent reports have led to shorter stays for catheterizations.

"Many centers have been very successful doing catheterization on an outpatient basis," Moller said.

As the consortium has refined its program, it has begun to look for new ways to use the data. This year the group will begin looking at those centers that do particularly well with certain procedures and try to determine if there are particular practices or guidelines the other centers could adopt. It will also take a closer look at centers with excessive mortality, and, in a separate effort, develop a series of charts and graphs that will enable physicians to give parents a more accurate estimate of the risk involved with different kinds of procedures. The consortium will also be looking at length of stay and its relation to quality of care.

The success of the program has begun to attract international attention. During his upcoming sabbatical, Moller will be working with Robert Anderson, M.D., in London to help establish a similar program in England.

"During the period of time the consortium has been in operation, mortality has come down," Moller said. "Some of that may be due to a general improvement in procedures and medical care, but I'd like to think that by having these people get together and analyze what they've done well and where they've come up short, that the consortium has had an impact." ■

sumably in treatment as well.

ANDERSON: Absolutely. That's one of the important benefits of our National Health Service. In the area of congenital heart disease, where the government has selected what we call "supraregional centers," we can offer the best treatment. This works remarkably well. Any child born with congenital heart disease in the United Kingdom will get absolutely first-class treatment that would not be bettered anywhere. The National Health Service gives us the opportunity, as you say, to centralize and to concentrate the expertise for these particular areas. Then, if we can group our own efforts, we can make it even better. Unfortunately, we've not yet succeeded in getting statistics from all 10 of our centers, but we are moving toward this.

REECE: *As part of your travels, you spend a few days each year at the University of Minnesota as a visiting professor. I understand that Dr. James Moller, a pediatric cardiologist at the University of Minnesota, may be spending time with you next year as a visiting professor.*

ANDERSON: Dr. Moller will be on sabbatical in London starting this month. When I learned he was thinking of coming to London, I asked him if he would come to our center. We have many interests in common, particularly pediatric cardiology, but more than that. We are both students of the epidemiology and natural history of congenital cardiac malformations. I'm hoping he will share with us his experience in setting up collaborative studies in the United States, particularly the venture he started with the Northern Great Plains Regional Cardiac Program. That venture now incorporates more than 20 centers in the United States (see related story, page 570). I'm hoping we can combine our experience among centers in the United Kingdom and in Europe. Eventually, we may be able to get a true international sharing of knowledge about the diagnosis and treatment of congenital cardiac malformations.

Dr. Moller had the idea of getting a group of centers, initially in the Midwest, to collect and combine their data, so he could analyze the natural history of cardiac malformations and the results of treatment. Surprisingly, all these centers agreed not only to combine their material, but also to combine the results of their treatment, so they could compare the results of surgery in one center with those in another and possibly improve by seeing which conditions were best treated in which centers. Dr. Moller's study has spread remarkably and now is much more than a Midwestern venture. Dr. Moller collates and analyzes the data at the University of Minnesota and is the driving force behind this very important study. We hope to gain very much from his experience during his visit to the United Kingdom. ■

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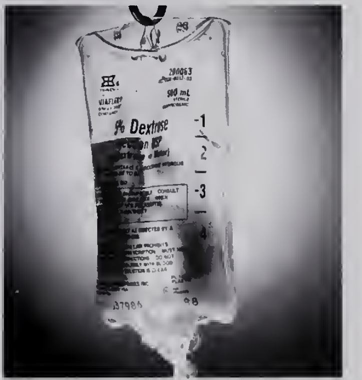

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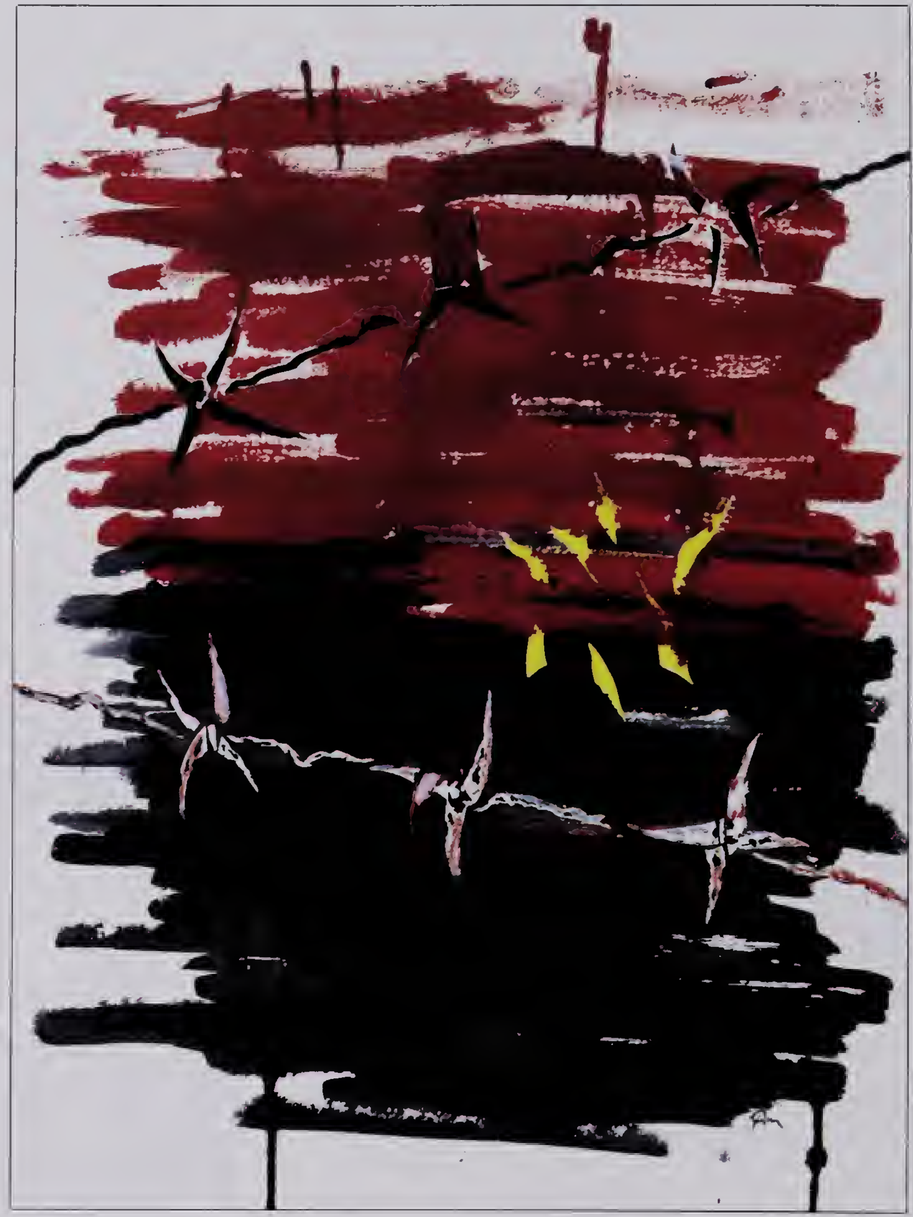

These Words Are Their Flowers:

'They Were Killed by Hatred— Their Memory Is Kept Alive in Love'

Robert O. Fisch, M.D.

I have been thinking for quite a long time that there is no appropriate medium to express artistically the scope of the tragedy of the Holocaust. Sorrow, suffering, and atrocities of this magnitude can be expressed only in an abstract, symbolic manner. Why, then, did I accept this almost impossible task? I agreed to illustrate the cover of this issue not because I felt artistically qualified, but because I was there. I wanted to offer homage in my own way for those who did not return. (Story page 574.)

I was 18 years old, living in Budapest, Hungary. My mother worked from 3 a.m. until 6 p.m., six days a week. Her favorite saying was "A man is as good as his word." From her I learned determination, endurance, and responsibility. My father, an exceptionally good man, loved life and always helped others. His favorite saying was, "Live and let live." From him I learned compassion and laughter. He and I had an unlimited joy together. I admired my father above all other human beings. Our parents provided us with every kind of education and with things they were not fortunate enough to have in their youth. I had just finished high school, and was getting ready for further studies. Because of being a Jew, I was not accepted at the university. Instead, I attended evening classes at an art school. My older brother was sent to Switzerland to study and to be away from the political turmoil. From my early infancy, I had a religiously Catholic nurse named Anna, who lived with us through the years and became like a second mother to me, providing me with utmost love and kindness. I attended both Friday service in the synagogue and Sunday Mass. I was taught to respect others' beliefs and ways of life, and our door was always open to those who were less fortunate.

I heard the news; my insides trembled, and I was speechless.

ON MARCH 9, 1944, the Germans occupied Hungary. The course of my life and the lives of many others changed forever. Soon after the occupation, all Jews had to be identified on their clothing with a 10-centimeter yellow Star of David. Their property was taken away, and they were moved to the ghettos. I volunteered with an organization that served as a liaison between the Jews and the German commandant. I was working in the Country Division. One day, a very excited man came and wanted to be seen by the top delegate. He described the first loading of Jews into boxcars: They were jammed shoulder to shoulder, squeezed together, without food or water, with only the clothes on their backs. The doors were locked from the outside, and the trains were heading toward an unknown destination. Although I knew nothing about the fate of Jews elsewhere in Europe, from that moment on, I knew I could not trust my future and that my only hope lay in the American forces occupying Sicily, the imminent invasion in France, and the advancing Russians from Stalingrad. At that time, my fear of death disappeared. As each bomb dropped on Budapest, I felt euphoric, thinking that my real enemy was hit and my friends and allies were advancing.

I cried out against the force but no one listened.

I CAN STILL see my father as he waved to me for the last time. After that I was taken to a work camp with 280 men age 18 to 48. We worked very hard, and although I had not previously done any physical labor, I was young, and I quickly got used to it. We were used for the hardest, most dangerous tasks, such as digging out unexploded bombs. During air raids, we had to stay near the military storage for explosives, because, as they said, if we were hit, "at least the ammunition would not be wasted." The work camp was managed by the Hungarian military. They fed us well, but their cruelty can be expressed best this way: When they confiscated things and searched us, they ripped to shreds all photographs of family members we had in our possession. Fathers watched as their precious pictures—maybe their last glimpses of loved ones—were destroyed before their eyes. As the military snatched them away they would exclaim, "You don't need these pictures anymore, because you will never see them again!"

Outside, the weapons; inside, the terror destroyed us.

JANUARY 1945: We were now with many others near the Austrian border. Imagine the oval brick burner building with its small opening filled with crawling skeletons. For two nights, we were forced to stay in the furnace room. The smell of decomposing bodies and incineration containers full of human excrement was indescribable. Darkness pervaded, leaving us no way to differentiate the dead from the dying. Millions of lice had invaded us. What a hopeless fight—fingers exhausted from endless scratching and nails broken by futile smashing. This point marked the beginning of an epidemic. My expectations of our destiny were confirmed.

Death rushed through our windows.

AN EPIDEMIC OF typhus, a disease transmitted by lice, broke out two weeks later. I was the first with high fever. Soon after, many prisoners started to collapse, one after another, unable to walk. The Germans reacted by kicking them but soon realized there was an epidemic and set up a room for the sick. The doctor sent for me and said, "You have to stay in there."

"Not me," I said, "I would rather work with the fever." The food was wonderful for the sick ones, since it included chocolate compote, an unimaginable luxury item. Oh, how tempting it was!

Twenty-nine people were confined to the sick room. One day, two trucks came to pick them up. The driver said, "Come on, there's room for 30 in the hospital where I'm taking these people."

"Fisch," the doctor said, "you're the sickest. Come." But I did not go. I did not trust them. The doctor told me I was crazy not to go and said that he never wanted to see me or hear my complaints again. Many who were well volunteered to go to the "hospital," but only one "lucky" one was chosen to be number 30.

All were shot at the edge of the village.

The songs of the sanctuaries turned into screams.

IN THE DEAD of winter, we marched from dawn to sunset at the foot of the Alps. Sometimes we marched for days without food or water. If someone sat down, he was shot. We carried nothing. Blankets were acquired by picking one up off the ground where it lay after someone had dropped from fatigue and no longer needed it. As we climbed toward the mountain pass, the number of bodies increased. We were ordered to stop and form lines of five. At the pass, two were randomly shot from each line. My line was getting close. About this time, an SS officer arrived and shouted, "What's going on here?! Who gave the order to shoot these prisoners?" The answer came, "Oh, the sergeant was just having fun." The sergeant was taken away. We kept marching.

Oh, God, in my sorrow, I beseech.

WE REACHED A small village by late afternoon. We numbered thousands, hungry and exhausted. An Austrian peasant brought a bag of apples outside the fences and started to throw them toward us. The reaction was wild. The peasant paid a dear price; she was shot on sight.

Yet, the SS members sometimes surprised us with their actions. They performed their duties without hesitation, whatever the cruel or vile act. However, alone, when not seen by comrades, some of them behaved quite differently, indeed. For instance, once during a march, an SS soldier rudely broke the line then secretly handed out sandwiches. On another occasion, the soldiers "mistakenly" gave out more food than the ration permitted. Humanity can be seen even in such a place as this! It was as if rare vegetation had been misplaced on a rock.

How the heroes were falling.

WE ARRIVED AT Mauthausen, an old concentration camp where the gas chambers were out of service. A big sign hanging above the entrance read, "Work Makes You Free." Dead bodies and skeletons were sprawled all over. Food ration for a day was a cup of black coffee and 10 decagrams of dark bread covered with green fungus. The toll was evident in our physical appearance—gaunt faces and skeletal frames. One dying boy turned to me and asked me to tell him about restaurants. He asked, "Is it really true that you can eat as much bean soup as you wish?" He never found out.

We slept in huge circus-sized tents. How marvelous to be in a tent after weeks of marching, with nowhere to lay our heads but on the frozen ground under the sky. The entire camp was surrounded by electrical barbed wire and towers with reflector search lights shining penetrating beams across the grounds all night. In Germany it was forbidden to light a cigarette at night because of air defense! On our second night there, a bomb was dropped and exploded in my tent. The airplane noise was deafening; all around were injured people, fire, bloodshed, and death. I was in a deep sleep as spittle flowed from my mouth. I awoke, and thought, "Hell, who cares? What a way to go!" I turned over and went back to sleep.

Witness my misery and save me.

WE STARTED OUT on yet another march because the Russians were nearing the camp. Five days of marching, and we were less and less able to walk because of our diminished strength. Some were given help and put on couches rigged to horses. Our direction: Concentration Camp Gunzkirchen—a "gem" in the Austrian forest. The exhausted victims from the couches were thrown directly into open graves, then shot in the head. At times, for target practice, observers were asked to lie down to be shot. But, surprise! Sometimes there was no bullet in the pistol. Some sense of humor! Then those same people were kicked back to their barracks. The barracks were packed full of people squatting—one on each side of you, one in front of you, knee to knee, one in back of you—crammed together. We were confined to the barracks 12 hours at night. During the night, the wicker buried people underneath and many suffocated. During the day, we were lined up and counted three times, for two hours. Food was given to us from a barrel the SS stood in. Our breakfast was a cup of coffee; our dinner, a cup of soup and a slice of bread. The toilet facilities consisted of a room for 12 men and 16 women for a prison population of 30,000. You had to use the "facilities" when you could find time to go—when you were not standing in line or confined to your barracks. Diarrhea or constipation afflicted everyone. If someone was seen or caught relieving themselves anywhere but in that latrine, they were shot. One rainy afternoon I tried to urinate discreetly under my overcoat. The SS guard was not observant enough to notice what I had done, but for no reason commenced to beat me with his rifle until I collapsed. This took care of my need to urinate, for a day.

Even the stones are wailing.

ONE DAY AN unusual alarm sounded, and everyone was ordered out of the barracks. The SS announced that someone had eaten meat. Who did it? Meat? Here? Ahh, they had eaten part of a corpse. Declaring what an "inhumane act" this was, the SS shot the perpetrators in front of us to "teach us respect for the dead ones." Oh, what a lesson in humanity.

Like dawn in the darkness, the light of Thee arises.

WE WERE DULY informed that Berlin had been occupied on May 1, 1945. Joy and hope filled our hearts, but nothing changed. It was business as usual and even more death. Following such feelings of hope, our despair became more profound than ever. The end seemed so close, yet so far away. A few SS tried to escape, and no time was lost in hanging them.

Our leaders learned that there existed an order: If enemy troops were approaching, the prisoners would be machine-gunned and the camp burned down. A deal was made between us and the guards. Some of them went to meet the approaching Americans and bring them in.

May 4, 1945, the Americans arrived! The young men from overseas risked their lives and saved ours. They were liberators bringing freedom and the beginning of an unexpected new life. What a relief it was to see their kind faces as they threw food, cigarettes, and candy to us. I had to crawl to pick it up, since I could not bend and keep my balance. The vanguard American troops, who had fought the Germans from Normandy until they met the Russians, even they were puzzled by our situation. They couldn't believe their eyes and our stories. Who could? Who could believe that we suffered our "Calvary" only because we had a different religion?

And the whole country mourned—families and individuals.

OUT OF 280 men, only 120 were alive. The numbers had diminished so in only three months. On my 20th birthday, I had to crawl over a single stairway because I was too weak to step on it. My hatred of the Germans was simple, "I will kill them all!" Then, on encountering my first German as a free man, I had to make a choice. He was dirty and hungry, begging for food. I asked myself whether I should do to him what they had done to us, or if I should do to him what my father would do. The choice was easy to make.

When I arrived home in Budapest I found my mother alive. Anna and her family had given her refuge. My father wasn't home. All of my other relatives had vanished. Among the 600,000 Hungarian Jews, 80,000 survived. In one single day, 30,000 Hungarians were cremated in Auschwitz. It was a record! The guard was specially praised.

Even death could not come between us.

I LEARNED THAT my father had been taken away. Even in the camp, he gave his food to the needier ones. He said, "I always have enough." He hoped to meet with me but did not get the opportunity. He was remembered as saying, "If one man can do this to another, there is no reason for me to go back." He didn't come back. My beloved father, who always gave to others, starved to death. What had become of "Live and let live"? He was so greatly respected, that he was the only one not buried in a common grave.

After the war, an eyewitness told me all this and led us to his grave. We brought him back, and he was the first to be buried in the Jewish Memorial Cemetery for the Martyrs.

Because of them our eyes are full.

THEY SAY THAT one man's death is a tragedy, 100 a disaster, 1,000 a statistic. At a memorial concentration camp cemetery there are many gravestones. As people walk through it they see one stone that reads, "Here are 10,000"; another reads, "Here are 20,000," etc. At the exit is a stone that reads, "Here is one."

Your martyrs live.

HOW CAN THE suffering and death of 6 million people be illustrated and appropriately described or expressed? What is the conclusion from it? In the case of tyranny, the individual has to stand up and fight. You either become part of the suppressor or the suppressed. There is no third way. The impact on all of us who survived is the experience. Whether we recognize it consciously or unconsciously, it is like a shadow accompanying us to our graves.

I rarely think about it. Individually, I gained. To me, bread is a symbol, as it is for Catholics. For them it is a symbol of the body of Jesus; for me it is a symbol of life. It is such a joy to go to the grocery store and buy food. Remember the boy who wanted to eat a second order of bean soup? Nights are a different story. As a European-born writer in Israel said, ''We might win all the battles against the Arabs during the day but lose against the Germans every night.'' At night I died a hundred times.

I feel that all of us who were marked by the yellow star were tatooed inside. We have a special obligation, not a privilege, in being alive. As survivors, our moral and human obligation is essential, and our standard has to be based on human principles rather than practicalities. We must take a stand against suppression and injustice. It hurts me more when injustice is done by Jews than by others. I do not have any hatred. I did not become a judge because I was a victim. Now I have a special obligation to show that my life is more than survival. We are not different from others; we just played a special role in a special time. One night in a dream I asked God, ''Are we the chosen people?''

''The world turns on its axis and each segment receives an equal share of sunshine.'' That was the answer.

After all of this, should not the world tremble and every person mourn?

MY PAINTINGS ARE usually joyful; through them I want to show how life could be, rather than what it is. I accepted the invitation to do the painting for the cover of this issue because I felt that, if not me, then who is more qualified to attempt to describe the desolation of those who were a part of the Holocaust?

In the painting I use barbed wire to illustrate ghettos, concentration camps, isolation. Even outside there is no hope. The shred of the yellow star represents being branded and tatooed. It represents loneliness, deprivation of dignity, and the residue of the survivors. Red typifies the existence of horror, torture, suffering, and bleeding. Black symbolizes hopelessness, despair, death. Even after death there is no peace. Each line, form, and color is a different hue of sorrow.

In the memorial cemetery where my father is, walls with the names of those whose whereabouts is known by location contain quotations. By including some of these quotations (in liberal translation) here, I have tried to give the illusion of walking with me in the cemetery to share how I felt and what I felt among the weeping gravestones—in reality and in my dreams.

Let these words be the flowers for those who did not return.

BITTER FRUIT

Illustrations by Gail Swanlund

The Legacy of Nazi Medical

Experiments

Beryl Byman

The third experiment … took such an extraordinary course that I called an SS physician of the camp as witness, since I had worked on these experiments all by myself. It was a continuous experiment on a 37-year-old Jew in good general condition … Breathing continued up to 30 minutes. After 4 minutes, the experimental subject began to perspire and wiggle his head, after 5 minutes cramps occurred, between 6 and 10 minutes breathing increased in speed and the experimental subject became unconscious; from 11 to 30 minutes breathing slowed down to three breaths per minute, finally stopping altogether.

Forty years have not dimmed this chilling reminder of man's capacity for unparalled cruelty. According to the Nuremberg Trials, Nazi scientists conducted about 25 different types of "experiments" on human subjects—from the Dachau high-altitude studies in decompression chambers described above, to Josef Mengele's infamous twins experiments in Auschwitz.

On the 50th anniversary of World War II, religious leaders, physicians, scholars, and Holocaust survivors gathered in Minneapolis in May to examine the role of medicine and science in the Holocaust and its implications for today, and to discuss when, if ever, the data from Nazi experiments should be used.

The controversy over the use of the Nazi data arose in 1988 when former University of Minnesota-Duluth physiologist Robert Pozos, Ph.D., was conducting experiments on hypothermia. Pozos' volunteers were submerged in icy water to determine a human being's ability to withstand exposure to low temperatures. When the volunteers reached the limits of their endurance, they emerged from the vats of freezing water. Looking for further answers, Pozos found a 68-page report on hypothermia experiments conducted by Nazi researchers at Dachau. Although Pozos wanted to use the data, he first asked Arthur Caplan, Ph.D., director of the University of Minnesota Center for Biomedical Ethics, whether their reuse would be ethical. Thus the debate that sparked the conference began.

"The Nazi scientists asked no questions. They had no limits and no volunteers."

The Nazi scientists asked no questions. They had no limits and no volunteers. Under the leadership of Dr. Sigmund Rascher, they conducted experiments to develop survival techniques for Luftwaffe pilots shot down over frigid North Sea waters. To simulate North Sea conditions, hundreds of Dachau inmates were immersed in vats of freezing water until their body temperatures fell to 79.7 degrees Fahrenheit. More than a third of the victims died of exposure.

The history of the 10 million people killed during the Holocaust has been recounted so often, that it loses its power to shock. But the wounds of two of the 110 survivors of Mengele's twins experiments—Eva Moses Kors of Indiana and Susan Seiler Vigorito of Cleveland—are still fresh. Even many years later, the retelling of their personal experiences as the subjects of medical experimentation reminds us of man's capacity for breathtaking cruelty.

Kors told conference participants she remembers that when she arrived at Auschwitz, the infamous "Angel of Death," Josef Mengele, stood at the gates shouting "Zwillinge, zwillinge" (twins).

"My sister and I were torn from our mother. We never saw her again," Kors told the hushed audience. Both sisters were put in pens, like animals, and as human guinea pigs, were subjected to brutal experimentation without anesthesia.

Susan Vigorito told of her sister, Hannah, dying in her arms. "I don't know exactly what killed her, but she received repeated injections and had convulsions," Vigorito said, speculating that Hannah died as a result of a typhus injection.

What forces in Germany could have allowed one of the most advanced scientific and cultural communities in the world to participate in medical atrocities? The historical background of these experiments includes a racist ideology firmly yoked to law and medicine and a culture that promoted conformity and obedience to authority. A depressed and unstable post-World War I economy allowed these forces to converge, and the result was the darkest years—1933 to 1945—of the German scientific community.

Solutions for the economic problems came from the German intelligentsia. American historian Robert Proctor, author of *Racial Hygiene: Medicine Under the Nazis*, describes a book written as early as 1920, entitled *Release and Destruction of Lives Not Worth Living*. The authors, Alfred Hoche, professor of psychiatry at Freiburg, and Rudolph Binding, professor of law, argued that ordinarily, when times were good and food was plentiful, society did not have to make life-and-death choices for the mentally ill and handicapped. In the 1920s, when resources were scarce, the authors proposed killing the incurably sick, those "empty human husks that fill our psychiatric institutions." The Nazis quickly seized this rationale, first as the basis for a sterilization program, then as the justification for systematically killing mental patients. Shortly afterward, the economic excuse for killing became implemented in German law.

The legal case that launched the children's euthanasia program—the program to destroy "lives not worth living"—began "innocuously," according to Robert Proctor. In 1938, the father of a child who was born blind, retarded, and without an arm and leg petitioned Hitler to allow the child to die a "merciful death." The request was granted, and the foundation for the child-murder program was laid. By 1943, Proctor estimates, 5,000 children had been killed, some deliberately and others simply through starvation. Ironically, Proctor adds, the same legal environment that authorized the killing of children, also defined abortion as treason, and punished the treating physician with imprisonment and, in some cases, by death.

Having established the pretext for killing mentally ill and handicapped children, the Nazis extended the concept to the adult euthanasia program designed to eliminate the weak, the handicapped, and the inferior members of the German community. By the end of August 1941, according to Proctor, 70,273 patients from more than 100 hospitals had been killed. Ultimately, the technical apparatus that existed for the killing of the mentally ill was used on Jews, Slavs, and Gypsies. The slide down the "slippery slope" that began with the mentally sick and incurably ill, ended in death for the "racially undesirable."

The full weight of German scientific and medical authority legitimized the nascent racial hygiene movement. At the turn of the century, eugenics—the "science of man"—gained momentum in German scientific institutes. Research in racial hygiene gathered force and proceeded at a feverish pace. New journals proliferated. Racial scholarship flourished. Proctor says, "By the end of 1934, the prestigious Kaiser Wilhelm Institute for Anthropology had trained 1,100 physicians in genetic and racial care." Scientists set out to prove the hereditary roots of all human physical and psychological characteristics, from blond hair to schizophrenia.

The head of the Kaiser Wilhelm Institute, Otmar Freiherr von Verschuer, received funds to support research conducted on twins. Verschuer trained and financed a notorious assistant, Dr. Josef Mengele, who supplied the Kaiser Wilhelm Institute with "scientific material" gathered from twin studies at Auschwitz. According to Proctor, Mengele sent Verschuer "bodies of murdered Gypsies, internal organs of dead children, skeletons of two murdered Jews, and blood samples of twins that Mengele had infected with typhus."

At the Minneapolis conference, German molecular biologist Benno Muller-Hill, author of *Murderous Science*, emphasized the frequently overlooked place of biomedical science under the Nazis. The German doctors, he argued, provided the theoretical underpinnings for racism as well as the technical means for implementing the Nazi genocide plan. Once dedicated to preserving life, the National Socialist doctors were now at the gates of the concentration camps selecting who would live and who would

die; they were the architects of the medical experiments performed on the unwilling concentration camp prisoners, and they designed the machinery that enabled mass killing to be performed efficiently and systematically. Their reward, said Muller-Hill, was "money and influence."

"The Holocaust must stand alone in history as an unparalled example of man's iniquity."

None of this is to say the entire biomedical community supported the Holocaust. Protest of Nazi sterilization and euthanasia came from many groups, particularly the Association of Socialist Physicians. But the resistance was feeble and easily suppressed. By 1933, the association was declared illegal and most of its members were either arrested or forced to flee. Meanwhile, large numbers of highly respected scientists, many of whom were experts in their fields, willingly embraced the National Socialist cause.

Survivors Kors and Vigorito emphasize that their torturers were "ordinary men," not demonic criminals working in subterranean laboratories to destroy the world. "Occasionally," Vigorito said, "Mengele would remove me from my cage and put me on his knee. Several hours later he pulled me out again and began to scrape my shins for his experiments." Perhaps the banality of these men—described by philosopher Hannah Ahrendt—is more unsettling than the stereotypical image of a mad scientist.

How can the conversion from healer to mass murderer be explained? In *The Nazi Doctors*, Robert Jay Lifton documents the doctors' psychological metamorphosis: "In the beginning, the process of selecting who will live and who will die was almost impossible. Afterwards it became almost routine." Although the degree of participation ranged from zealous to reluctant, most eventually adapted and participated.

These doctors considered themselves "biological soldiers," fighting to heal the racially "diseased" body of Germany. If racial impurity was a disease, then eliminating the defective race was the cure. Thus, Nazi doctor Fritz Klein could boast with impunity: "My Hippocratic oath tells me to cut a gangrenous appendix out of the human body. The Jews are the gangrenous appendix of mankind."

Allowing further rationalization for the deadly experiments were language and imagery that softened reality. The gas chamber became "the Central Hospital." "Selection" and "Final Solution" suggested science, not murder. In Nazi terminology "medical experimentation" meant inoculating prisoners with typhus and tuberculosis. In the name of science, victims were forced to drink poisoned sea water, exposed to lethal gas, and injected with typhus and malaria.

From the wreckage of the Nazi experiments came the 1946 Nuremberg Code that requires voluntary and informed consent in all human experimentation. Ethical codes in medicine were again defined in the 1964 Declaration of Helsinki and revised in 1975. Yet the quandary over whether or not to use the data gleaned from Nazi experiments remains unresolved. In an impassioned and often emotionally charged debate, conference participants argued the issue. One Holocaust survivor, Jay Katz, Yale professor of law and medicine and author of *Experimentation with Human Beings*, opposed the use of the data: "Their use may dehumanize us [just] as conducting the experiments did the Nazi physicians."

"The full weight of German scientific and medical authority legitimized the nascent racial hygiene movement."

Both Kors and Vigorito agreed. Kors argued that accepting the data lends credibility to the Nazi perversion of science. "We were treated like a commodity," she said, "Our hair used for mattresses . . . our body fat used for soap. All we have left from the experience is the data." She recommended that we place the information in a monument, to be remembered but never used.

Others disagreed. Ethicist and chair of the conference, Arthur Caplan, urged "that the data, however repugnant, should be used if it is necessary and the only way to save lives." A number of scholars agreed that if the data could save a life or advance scientific research in some way, suffering of the victims will not have been in vain.

Nancy Segal, assistant director of the Minnesota Center for Twin and Adoption Research at the University of Minnesota, conducted an inquiry of the surviving 110 twins.

Even though the response was limited—only 14 out of 110 responded—the results, Segal says, "suggest that the twins are not uniformly opposed to using the data."

Although he did not attend the conference, Dr. Albert Haas, professor of experimental rehabilitation medicine at the Rusk Institute in New York, provides a unique perspective. Forty-five years ago, as a prisoner/physician in Mauthausen Concentration Camp in Austria, he participated in experiments to determine the effect of sulfa on tubercular patients. Haas recalled that, "When prisoners began to show signs of toxicity, I decided to stop the medication." Nevertheless, the deliberately falsified results were published in German medical journals. "If the data are used," he cautioned, "they must be examined for credibility."

But all insist that if the data are used, the taint of the Holocaust must be acknowledged openly, not categorized euphemistically as "Dachau experiments," as has been done in the past—and the data have been used many times in published reseach.

In fact, argues Caplan, "the debate over the use of the Nazi data is, for all practical purposes, a moot point—the data have already been used." The Hastings Center lists approximately 45 articles published worldwide since 1945 that draw upon the Nazi data, largely the hypothermia and decompression experiments. Plus, Americans used the high-altitude studies for their space program. According to hypothermia researcher Robert Pozos, "The whole U.S. space program has inherited tainted data."

In addition to the legacy of the Nazi medical data, another footnote to the Holocaust is the fate of Nazi scientists after the war. Many were "de-Nazified" and absolved from any major responsibility for Nazi atrocities. After the war, Proctor says, they assumed positions of leadership in German universities. Otmar Freiherr von Verschuer, Mengele's mentor and sponsor, was subsequently awarded honors for a distinguished academic career at the University of Munster. Fritz Lenz, one of the architects of the racial hygiene movement before the war, continued publishing on human genetics at the University of Gottingen. Werner Catel, a master builder of the children's euthanasia program, continued his professional life as a prominent professor of pediatrics. And a number of Nazi scientists (particularly rocket experts) were embraced by the United States after the war.

"How can the conversion from healer to mass murderer be explained?"

Indeed, our own history of biomedical ethics is not without blemish. Programs in the United States led to the forced sterilization of 15,000 individuals—mostly prison inmates and mentally ill patients—by the late 1920s. From 1932 to 1972 the United States Public Health Service Tuskegee Experiment studied 400 black men suffering from syphilis; the men were neither treated nor told they had the disease. These facts led conference scholars to ask whether we, at the end of the 20th century, can avoid the mistakes of 50 years ago. Will genetic engineering, for example, go from the creation of a better life to the creation of a "master race," thus fulfilling the Nazi legacy? Can we avoid "selection" with a new twist?

While the potential advantages and disadvantages of genetic technology are debated, genetic research proceeds with rapid intensity. This year, the federal government will pay $100 million to fund the National Institutes of Health Human Genome Project, described as the new "Manhattan Project." The bill for this massive effort to decode the human gene sequence may run as high as $6 billion in the next 10 years. Unraveling the human genome may provide us with the potential to cure many diseases including cystic fibrosis, muscular dystrophy, kidney disease, and sickle-cell anemia.

But we have already seen that the genetic manipulation of plants and animals has created a furor. When we go further, to the possibility of the genetic manipulation of human beings, the problems are even more disquieting. On one extreme, strident critics like Jeremy Rifkin of the Foundation on Emerging Technology conjure up science-fiction scenarios of strange mutants running loose. On the other extreme, vigorous defenders of the genome project envision going beyond curing disease to the possibility of making human beings smarter, more courageous, and better adjusted.

The problems surrounding genetic engineering highlight one of the main themes of the conference: Science is not value-free. A 1988 report entitled "Mapping our Genes," from the Congressional Office of Technology Assessment in Washington, D.C., states that, "Specific genetic information such as the location of a gene along a chromosome or the sequence of nucleotide bases composing a specific gene is value-neutral and as such is not genetically troubling." True. But how will we use genetic information? To make decisions about the height of our children? About gender? Intelligence? Behavior? Who will define genetic normalcy? How do we account for the role of environment and cultural variation? Who, other than the patient, is entitled to receive personal and private genetic information? Prospective employers? Insurance companies? In the field of genetics, ethical dilemmas force

"The debate over the use of the Nazi data is, for all practical purposes, a moot point—the data have already been used."

us to run like Topsy simply to keep in place.

Conference scholars also compared the current medical cost-containment movement in the United States with the cost-cutting rationale of post-World War I Germany. Doctors and ethicists expressed concern that today's furious efforts to stem the costs of medical care may lead to drastic measures reminiscent of Nazi Germany's elimination of "lives not worth living." Noting that the Holocaust began when resources were scarce, they grappled with tough medical questions that arise from limited health care dollars. Today, in tight economic times, when 12 percent of the GNP is spent on health care and $2.3 billion is cut from Medicare, can we separate a patient's well-being from economic concerns? The means are far from clear. The Hastings Center's *Guidelines on the Termination of Life-Sustaining Treatment* cautions health care providers on one hand: "to avoid discriminating against the critically ill and dying, to shun invidious comparisons to the economic value of various individuals to society, and to refuse to abandon patients and hasten death and save money."

On the other hand, the guidelines also state that: "The health care professional caring for an individual should not be involved in cutting costs or rationing scarce resources at the bedside for the benefit of society . . . unless it is in accordance with institutional or governmental policy."

What are these policies? And who makes them? Increasingly, in the United States it is the government. Regulatory agencies now make medical decisions that were once made between patient and doctor. Meanwhile, problems arise faster than solutions. Who determines when life supports are removed? Who receives expensive organ transplantion surgery? When do patient transfers become "patient dumping"? Will we be faced with another form of "selection," this time based on who will pay? And who will stand at the economic gates to make that decision?

Yet, even though we are faced with increasingly difficult ethical choices in health care rationing and genetic technology, it is wise to use caution in invoking Nazi Holocaust metaphors to prove or disprove biomedical arguments. There are vast differences.

Unlike Nazi Germany, the United States does not have official racist policies entrenched in law. We are not faced with impending war or starvation. We are not a society that places the welfare of the state over the individual or family. Nor do Americans give unquestioning obedience to authority. We have an unbroken tradition of a free press and open discourse. We have already drawn lessons from the Holocaust that are embodied in the Nuremberg Code and Declaration of Helsinki.

The Hastings Center and the University of Minnesota Center for Biomedical Ethics are two of several institutions that develop ethical guidelines in medicine. Biomedical ethics is taught in most medical schools today. And, as part of the Human Genome Project, a percentage of funds has been allocated for the development of ethical guidelines. The Holocaust must, therefore, stand alone in history as an unparalled example of man's iniquity.

Many years ago, Dr. Leo Alexander, who worked with the United States Counsel for War Crimes in Nuremberg, reminded us that the Nazi euthanasia program "started from small beginnings." The Minneapolis conference, itself, is an example of our search to avoid "small beginnings." Perhaps, in the end, the use of the Nazi data is less important than the public dialogue about what the essence of medicine is and should be.

Beryl Byman is director of Community Relations and Development at Winona State University in Rochester.

The Minnesota Humanities Commission made it possible for her to attend the University of Minnesota-sponsored conference, The Meaning of the Holocaust for Bioethics.

This article will be the basis for a series of documentary radio programs scheduled for broadcast on Minnesota Public Radio/KLSE in 1990.

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3. The use of potassium salts in patients receiving diuretics for uncomplicated essential hypertension is often unnecessary when such patients have a normal dietary pattern. Serum potassium should be checked periodically, however, and if hypokalemia occurs, dietary supplementation with potassium-containing foods may be adequate to control milder cases. In more severe cases supplementation with potassium salts may be indicated.

CONTRAINDICATIONS: Potassium supplements are contraindicated in patients with hyperkalemia since a further increase in serum potassium concentration in such patients can produce cardiac arrest. Hyperkalemia may complicate any of the following conditions: Chronic renal failure, systemic acidosis such as diabetic acidosis, acute dehydration, extensive tissue breakdown as in severe burns, adrenal insufficiency, or the administration of a potassium-sparing diuretic (e.g , spironolactone, triamterene).

Wax-matrix potassium chloride preparations have produced esophageal ulceration in certain cardiac patients with esophageal compression due to enlarged left atrium.

All solid dosage forms of potassium chloride supplements are contraindicated in any patient in whom there is cause for arrest or delay in tablet passage through the gastrointestinal tract. In these instances, potassium supplementation should be with a liquid preparation.

WARNINGS: Hyperkalemia—In patients with impaired mechanisms for excreting potassium, the administration of potassium salts can produce hyperkalemia and cardiac arrest. This occurs most commonly in patients given potassium by the intravenous route but may also occur in patients given potassium orally Potentially fatal hyperkalemia can develop rapidly and be asymptomatic. The use of potassium salts in patients with chronic renal disease, or any other condition which impairs potassium excretion, requires particularly careful monitoring of the serum potassium concentration and appropriate dosage adjustment.

Interaction with Potassium Sparing Diuretics—Hypokalemia should not be treated by the concomitant administration of potassium salts and a potassium-sparing diuretic (e.g , spironolactone or triamterene) since the simultaneous administration of these agents can produce severe hyperkalemia

Gastrointestinal Lesions—Potassium chloride tablets have produced stenotic and/or ulcerative lesions of the small bowel and deaths. These lesions are caused by a high localized concentration of potassium ion in the region of a rapidly dissolving tablet, which injures the bowel wall and thereby produces obstruction, hemorrhage or perforation.

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Metabolic Acidosis—Hypokalemia in patients with metabolic acidosis should be treated with an alkalinizing potassium salt such as potassium bicarbonate, potassium citrate, potassium acetate, or potassium gluconate

PRECAUTIONS: The diagnosis of potassium depletion is ordinarily made by demonstrating hypokalemia in a patient with a clinical history suggesting some cause for potassium depletion. In interpreting the serum potassium level, the physician should bear in mind that acute alkalosis per se can produce hypokalemia in the absence of a deficit in total body potassium while acute acidosis per se can increase the serum potassium concentration into the normal range even in the presence of a reduced total body potassium. The treatment of potassium depletion, particularly in the presence of cardiac disease, renal disease, or acidosis requires careful attention to acid-base balance and appropriate monitoring of serum electrolytes, the electrocardiogram, and the clinical status of the patient.

Laboratory Tests: Regular serum potassium determinations are recommended. In addition, during the treatment of potassium depletion, careful attention should be paid to acid-base balance, other serum electrolyte levels, the electrocardiogram, and the clinical status of the patient, particularly in the presence of cardiac disease, renal disease, or acidosis.

Drug Interactions: Potassium-sparing diuretics; see **WARNINGS.**

Carcinogenesis, Mutagenesis, Impairment of Fertility: Long-term carcinogenicity studies in animals have not been performed.

Pregnancy Category C: Animal reproduction studies have not been conducted with K-DUR. It is also not known whether K-DUR can cause fetal harm when administered to a pregnant woman or can affect reproduction capacity. K-DUR should be given to a pregnant woman only if clearly needed.

Nursing Mothers: The normal potassium ion content of human milk is about 13 mEq per liter. Since oral potassium becomes part of the body potassium pool, so long as body potassium is not excessive, the contribution of potassium chloride supplementation should have little or no effect on the level in human milk

Pediatric Use: Safety and effectiveness in children have not been established.

ADVERSE REACTIONS: One of the most severe adverse effects is hyperkalemia (see **CONTRAINDICATIONS, WARNINGS,** and **OVERDOSAGE**). There have also been reports of upper and lower gastrointestinal conditions including obstruction, bleeding, ulceration, and perforation (see **CONTRAINDICATIONS** and **WARNINGS**); other factors known to be associated with such conditions were present in many of these patients.

The most common adverse reactions to oral potassium salts are nausea, vomiting, abdominal discomfort, and diarrhea These symptoms are due to irritation of the gastrointestinal tract and are best managed by taking the dose with meals or reducing the dose.

Skin rash has been reported rarely

OVERDOSAGE: The administration of oral potassium salts to persons with normal excretory mechanisms for potassium rarely causes serious hyperkalemia However, if excretory mechanisms are impaired or if potassium is administered too rapidly intravenously, potentially fatal hyperkalemia can result (see **CONTRAINDICATIONS** and **WARNINGS**). It is important to recognize that hyperkalemia is usually asymptomatic and may be manifested only by an increased serum potassium concentration and characteristic electrocardiographic changes (peaking of T-waves, loss of P-waves, depression of S-T segment, and prolongation of the QT-interval). Late manifestations include muscle-paralysis and cardiovascular collapse from cardiac arrest.

Treatment measures for hyperkalemia include the following:

1. Elimination of foods and medications containing potassium and of potassium-sparing diuretics.
2 Intravenous administration of 300 to 500 ml/hr of 10% dextrose solution containing 10–20 units of insulin per 1,000 ml.
3 Correction of acidosis, if present, with intravenous sodium bicarbonate.
4 Use of exchange resins, hemodialysis, or peritoneal dialysis.

In treating hyperkalemia, it should be recalled that in patients who have been stabilized on digitalis, too rapid a lowering of the serum potassium concentration can produce digitalis toxicity

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"Low Back Pain" by Robert Wengler, M.D. – 12:00 noon, Sioux Valley Hospital, New Ulm, MN

October 14
Health One Oncology Symposium – 8:30 a.m.-4:00 p.m. Holiday Inn Downtown, Minneapolis

October 14
Current Trends in Ophthalmology – Metropolitan-Mount Sinai Medical Center Phillips Eye Institute

October 20
United Cardiology Conference and Jesse E. Edwards Lectureship – Conference Center – United and Children's Heart Lung Building

October 28
7th Annual Clinical Review for Physicians, "Cerebral Vascular Ischemic Disease and Neurovascular Compression Syndromes – An Interdisciplinary Approach" – 8:00 a.m.-4:00 p.m., Hyatt Regency Hotel, Nicollet Mall, Minneapolis – sponsored by Midwestern Heart Lung Clinic. Featured keynote – Dr. David V. Roos, Denver, and luncheon speaker – Miss Gretchen Carlson, Miss America 1989. Contact Wendy Wolf (612) 871-4771.

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Approaches to Living Donor Renal Transplantation

Arthur J. Matas, M.D.; David E. R. Sutherland, M.D.; William D. Payne, M.D.; David. L. Dunn, M.D.; Elizabeth Perry, M.D.; and John S. Najarian, M.D.

The first successful kidney transplant was performed from an identical twin donor more than 35 years ago without the use of immunosuppression in the recipient. Successful transplantation of kidneys from non-twin donors began in the 1960s after immunosuppressive drugs were developed. Since those initial efforts, both living related and cadaver donors have continued to be used. The two main reasons to use living related donors are: 1) the shortage of cadaver donor kidneys for the number of patients who want and could benefit from a transplant, and 2) the better results with living related donors, both in terms of graft function and long-term patient survival rates.

The results from both of these sources have steadily improved over the past two decades and have been particularly good since cyclosporine was added to the immunosuppressive armamentarium. More and more patients with end-stage renal disease are opting for renal transplantation. At the same time, patients who were at one time considered high risk (e.g., age over 55) are now routinely accepted as transplant candidates.

Although the number of potential transplant recipients has grown dramatically, the number of cadaver donors has not. Thus, waiting lists and waiting times for cadaver transplants increase each year. This growing shortage of cadaver donors has prompted expansion of the criteria for acceptable living donors. We herein describe two approaches that enlarge the pool of possible donors for patients with renal failure: 1) use of living unrelated donors and 2) use of ABO-incompatible donors.

Materials and Methods

Living Unrelated Donors

Between January 1986 and March 1989, 13 patients at the University of Minnesota received living unrelated donor transplants (nine primary, four retransplants). None of them had suitable related donors. Patient demographics and donor source are shown in Table 1. Eleven patients were blood type O. The major motivating factor in using a living unrelated donor was the prolonged waiting time for a cadaver kidney. All recipients received random donor blood transfusions as part of our pretransplant protocol. Azathioprine was started one week prior to transfusion and continued for two weeks after transfusion.

Living unrelated donors underwent the same medical evaluation as living related donors. In addition, all donors were interviewed by a psychiatrist to ensure that their motivation was altruistic. Our policy is that donors who expect financial reward are unacceptable. As with related donors, unrelated donors' evaluation, hospitalization, and surgery costs are covered by the recipients' insurance (e.g., Medicare).

Postoperatively, the 11 adult

TABLE 1
Demographics of recipients of living unrelated donor transplants

Age (range)	9 mos - 48 yrs
No. male/female	6/7
No. primary/secondary transplants	9/4
Blood type - O/A	11/2
PRA* (range)	0 - 75%
Donor Source	
friend	5
wife	3
stepfather	2
husband	1
ex-wife	1
ex-husband	1
Mean AB mismatch	3 ± .4
AB DR mismatch	4 ± 1
Etiology of renal failure	
diabetes	5
chronic glomerulonephritis	3
other (gout, oxalosis, IgA nephropathy, dysplasia, lupus)	5

*percent reactivity to a panel of donor lymphocytes recipients received Minnesota antilymphoblast globulin (ALG) (20 mg/kg IV for 7 days), prednisone, and azathioprine. Cyclosporine (5 mg/kg twice a day) was started on postoperative day 5, and the dose was subsequently adjusted to maintain a trough level of 200 ng by high-performance liquid chromatography (HPLC) for the first three months. The two pediatric recipients received two weeks of ALG and were subsequently started on cyclosporine, as per our pediatric protocol. All patients are maintained on Bactrim (trimethoprim/sufamethoxazole) Tab I, every day for the duration of their transplant.

Patients have been followed for three months to three years. Graft and patient survival and the number of rejections were determined and compared with the outcome of 306 cadaver transplants done during the same time period.

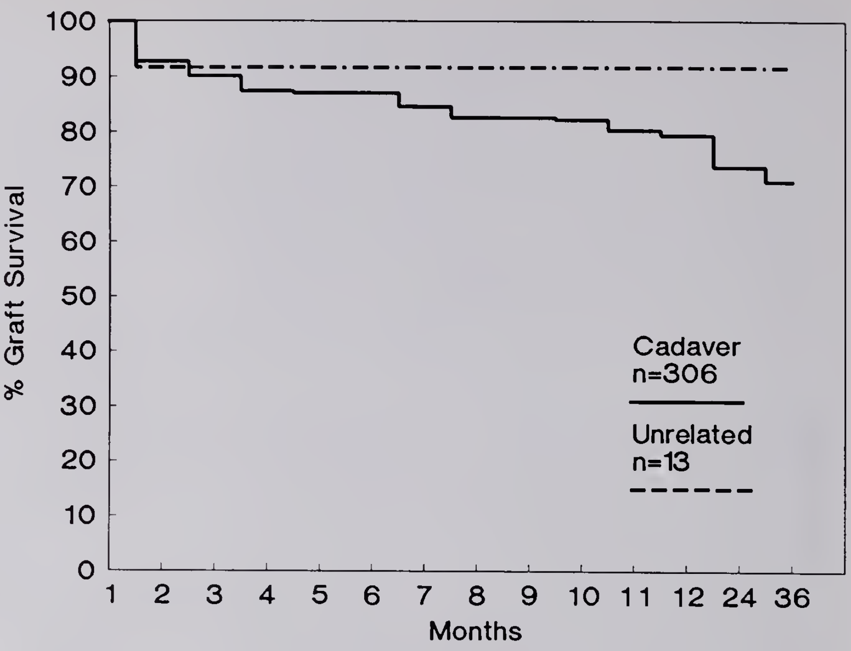

FIGURE 1 - Actuarial graft survival (1986-1989) of cadaver vs. living unrelated donor kidneys (p = .02).

ABO-Incompatible Donors

Two patients have received ABO-incompatible transplants at the University of Minnesota. The first patient has been reported on previously.[1] Briefly, he had rejected an ABO-compatible transplant and was retransplanted with a living related, ABO-incompatible donor kidney after plasmapheresis to remove anti-A antibodies. The retransplant functioned well; however, a rejection episode occurred on postoperative day 22. The patient was treated by plasmapheresis and subsequently OKT3. On day 48, he developed cytomegalovirus and pneumonitis. His course deteriorated, and he died from cytomegalovirus sepsis.

The second patient was a 15-year-old female, blood type O, with renal failure secondary to membranoproliferative glomerulonephritis. It was felt that she would have a long wait for a cadaver kidney and that she was at a critical age. Her brother, blood type A, was a 3-antigen (1-haplotype) HLA ABDR match and was willing to donate his kidney. The recipient underwent four plasmaphereses pretransplant. Anti-A titers were measured by standard techniques.[2] Concurrent with the last plasmapheresis, the patient was given two units of donor-specific fresh frozen plasma. It was hoped that the small amount of free antigen in the fresh frozen plasma would bind any circulating antibody. Pre- and post-plasmapheresis anti-A IgM titers are shown in Table 2. At the conclusion of the last plasmapheresis, anti-A titer was zero.

The patient underwent splenectomy at the time of transplant, and donor-specific fresh frozen plasma was again administered. The kidney functioned immediately in the operating room; serum creatinine level on postoperative day 1 was 1.2 mg/dl. Immunosuppression consisted of ALG (20 mg/kg IV for 14 days), prednisone, and azathioprine. Cyclosporine was started on postoperative day 12.

TABLE 2

Preoperative anti-A IgM antibody titers in the blood type O recipient of a type A kidney

Day	Anti-A Titer pre-plasmapheresis	post-plasmapheresis
-4	1:256	1:16
-3	1:32	1:8
-2	1:128	1:4
-1	1:16	0
0	1:2 (preop)	

Results

Living Unrelated Donors

All 13 patients who received living unrelated donor transplants are currently alive. One kidney was lost for technical reasons; the remaining 12 continue to function three months to three years posttransplant. Figure 1 compares the outcome of living unrelated donor vs. cadaver transplants (n = 306) during the same period (1986 to 1989) at our institution. Although the number of recipients of living unrelated transplants is small, the results are significantly better than with cadaver transplants (p = .02). For the adult patients, the mean hospital stay was 8 ± 1 days. The two children (who received two weeks of ALG) were in the hospital for 17 and 27 days, respectively. Of the 12 patients with graft function, seven have never had a rejection episode, and four have had a single rejection. Current mean serum creatinine is 1.6 ± .3 mg/dl.

ABO-Incompatible Donors

The first patient has been described previously. Although the kidney functioned, a rejection episode was treated at 22 days. This was followed by cytomegalovirus sepsis and death. Immunofluorescent study of a posttransplant biopsy of the kidney revealed intense immunofluorescence with monoclonal and polyclonal anti-A reagents along all endothelial surfaces.[1] Thus, donor A antigen was present on the endothelial surface. This occurred at a time when there was circulating anti-A antibody; however, there was no evidence of antibody-mediated rejection.

The second patient also had immediate kidney function. The pre- and postoperative anti-A titers are shown in Tables 2 and 3. Anti-A IgM titers remained below 1:16 for the first three days posttransplant. On day 4, the titer was 1:16 (serum creatinine 1 mg/dl), and plasmapheresis was performed. The following day, the titer was 1:64 and serum creatinine remained stable at 0.9 mg/dl. On postoperative day 6, the titer had risen to 1:256 without a change in creatinine level. Plasmapheresis was again performed. Subsequent IgM anti-A titers have remained between 1:256 and 1:512 with no change in renal function. The patient was discharged on postoperative day 15 after receiving a two-week course of ALG. She has not had a subsequent rejection episode and is currently three months posttransplant with a serum creatinine level of 1 mg/dl.

Discussion

The shortage of cadaver kidneys, combined with the obvious improvement in quality of life with a successful transplant, has led to attempts to increase the donor pool. The two approaches described in this paper would not have been considered a decade ago—the ABO-incompatible donor approach because of the risk of antibody-mediated graft destruction, and the living unrelated donor approach because the results were presumed to be similar to cadaver transplants and thus would not justify the risk to the living donor.

ABO-incompatible transplants have now been performed at a number of centers. Preoperative antibody removal by either plasmapheresis or column adsorption appears to be essential. Bone marrow, liver, and renal transplants have been successfully done after antibody removal.[3-6] Transplants without antibody removal do not always fail but are associated with markedly decreased graft survival.[7] The success in some patients without antibody removal pretransplant may be due to the presence of low titer or low avidity antibody.

The most experience in living donor ABO-incompatible renal transplants has been reported by Alexandre at the Louvain Medical School in Belgium.[5] All but three patients (n = 26) underwent pretransplant splenectomy; all were immunosuppressed with ALG, azathioprine, prednisone, and, more recently, with cyclosporine. All three patients not undergoing splenectomy had rapid graft rejections; in those undergoing splenectomy, 90% of the grafts currently function with normal serum creatinine levels. Alexandre et al. would currently prefer a 6-antigen HLA match, ABO-incompatible living related donor to a 1-haplotype (3-antigen) match, ABO-compatible donor (personal communication). Bannett et al. have reported on six ABO-incompatible transplants.[7] One patient had a delayed hyperacute rejection (postoperative day 6); it was difficult to lower the patient's anti-A titer pretransplant. Thus, it may be that only certain recipients can have titers lowered adequately to allow ABO-incompatible transplantation.

TABLE 3
Postoperative anti-A antibody titers in a blood type O recipient of a blood type A kidney

Postoperative Day	Anti-A Titer
1-3	< 1:16
4	1:16*
5	1:64
6	1:256*
> 6	1:256 - 1:512

*plasmapheresis performed

Living unrelated donation raises an important ethical issue. Does the benefit to the recipient justify the risk to the donor? The results of living related donation are better than with cadaver donors, and therefore, in that circumstance, the risk seems justified. Our preliminary results with living unrelated donation are comparable to our living related donor results and are significantly better than with cadaver donors (p = .02). The reason for these excellent results is obviously not HLA matching. The average HLA AB antigen match was only 0.9 ± .2. In fact, for living related transplants, HLA matching (other than the 6-antigen match) is also relatively unimportant: the 0-haplotype (no antigens matched) and 1-haplotype (3 antigens matched) recipients have identical outcomes.[8] The factors these groups have in common are: 1) the donor kidney is cooled and transplanted immediately, 2) the operation is done electively when donor and recipient are in optimal condition, and 3) immunosuppression can be started preoperatively.

The potential risks to the donor fall into two major categories: 1) preoperative morbidity and mortality and 2) long-term consequences of having only one kidney. The mortality of the procedure in the United States is about 0.06%.[9] In addition, as with any other operation, there are risks of bleeding, infection, and a variety of minor complications. Although each of these is rare, it is important that potential donors be informed of the risk at the time they are contemplating donation. We have done over 1,500 living donor transplants since 1964 without a single perioperative death. A number of long-term follow-up studies have shown little risk of having only one kidney. Although mild proteinuria has been reported, there is no increased risk of renal failure or hypertension.[9-16] In fact, in a recent survey of life insurance companies, Spital found that only one in 54 (2%) would raise the premium for a healthy living donor after uninephrectomy.[17]

Living unrelated donors are highly motivated. They are frequently very close emotionally to the recipient or family. In a number of our cases, the recipient was doing poorly on dialysis, and the potential donor insisted on donating. We are currently studying the psychological factors involved in choosing to become a donor in these circumstances. It has been argued that the decision to donate belongs to the donor, not the transplant center. If donors are fully informed of all risks and choose to donate, they should be accepted by the center.[18]

Sollinger et al.[19] and Pirsch et al.[20] previously reported on living unrelated donor transplants with a donor-specific transfusion protocol. Of the 50 patients in the protocol, 10 (20%) developed a positive crossmatch and were unable to receive a transplant from their prospective donor. Outcome in those undergoing transplants was excellent: the three-year actuarial graft survival was 89%, and mean serum creatinine was 1.7 mg/dl in patients with functioning grafts. We have used random-donor rather than donor-specific transfusions, so we have not sensitized any recipients to their potential unrelated donors.

Using living unrelated and ABO-incompatible donors provides two additional potential sources of a kidney for patients with end-stage renal failure. Living unrelated donors have already become an acceptable alternative in our program, whereas ABO-incompatible donors remain experimental. Attempts at expanding the recipient pool are similarly being made with cadaver kidney transplants. For example, Palmer et al.[21] recently reported performing such transplants in highly sensitized patients after removing anti-HLA antibodies. We are hopeful that increasing numbers of patients can undergo successful transplants with these techniques.

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References

1. Chopek MW, Simmons RL, Platt JL: ABO-incompatible kidney transplantation: Initial immunopathololgic evaluation. Trans Proc 19:4553-4557, 1987.

2. Widman FK (ed): Technical Manual. Washington DC, American Association of Blood Banks, 1985, p. 454.

3. Besinger WI, Buckner CD, Cliff RA, et al.: Comparison of techniques for dealing with major ABO-incompatible marrow transplants. Trans Proc 19:4605-4608, 1987.

4. Fischel RJ, Ascher NL, Payne WD, et al.: Pediatric transplantation across ABO blood group barriers. Trans Proc 21:2221-2222, 1989.

5. Alexandre GPJ, Squifflet JP, DeBruyere M, et al.: Present experiences in a series of 26 ABO-incompatible living donor renal allografts. Trans Proc 19:4538-4543, 1987.

6. Gordon RO, Iwatsuki S, Esquival CO, et al.: Experience with primary liver transplantation across ABO blood groups. Trans Proc 19:4575-4579, 1987.

7. Bannett AD, McAlack RF, Raja R, et al.: Experiences with known ABO-mismatched renal transplants. Trans Proc 19:4543-4546, 1987.

8. Kaufman DB, Sutherland DER, Noreen H, et al.: Renal transplantation between living-related sibling pairs matched for zew-HLA haplotypes. Transplantation 47:113-119, 1989.

9. Bay WH, Hebert LA: The living donor in kidney transplantation. Ann Intern Med 106:719-727, 1987.

10. Ogden DA: Consequences of renal donation in man. Am J Kidney Dis 2:501-511, 1983.

11. Vincenti F, Amend WJC, Kaysen G, et al.: Long-term renal function in kidney donors. Transplantation 36:626-628, 1983.

12. Smith S, Laprad P, Grantham J: Long-term effect of uninephrectomy on serum creatinine concentration and arterial blood pressure. Am J Kidney Dis 6:143-148, 1985.

13. Miller IJ, Suthanthiran M, Riggio RR, et al.: Impact of renal donation: Long-term clinical and biochemical follow-up of living donors in a single center. Am J Med 79:201-208, 1985.

14. Hakim RM, Goldszer RC, Brenner BM: Hypertension and proteinuria: Long-term sequelae of uninephrectomy in humans. Kidney Int 25:930-936, 1984.

15. Williams SL, Oler J, Jorkasky DK: Long-term renal function in kidney donors: A comparison of donors and their siblings. Ann Intern Med 105:1-8, 1986.

16. Torres VE, Offord KP, Anderson CF, et al.: Blood pressure determinants in living-related renal allograft donors and their recipients. Kidney Int 31:1383-1390, 1987.

17. Spital A: Life insurance for kidney donors—An update. Transplantation 45:819-820, 1988.

18. Spital A: Living kidney donation: Still worth the risk. Trans Proc 20:1051-1058, 1988.

19. Sollinger HW, Kalayoglu M, Belzer FO: Use of the donor specific transfusion protocol in living-unrelated donor-recipient combinations. Ann Surg 204:315-321, 1986.

20. Pirsch JD, Sollinger HW, Kalayoglu M, et al.: Living unrelated transplantation: Results in 40 patients. Amer J Kid Dis 12:499-503, 1988.

21. Palmer A, Taube D, Welsh K, et al.: Removal of anti-HLA antibodies by extracorporeal immunoadsorption to enable renal transplantation. Lancet i:10-12, 1989.

The Health Care Quality Improvement Act
Enhanced Peer Review Immunity

Prepared by the Minnesota Medical Association

Physicians and others who engage in peer review activities may be immune from liability for monetary damages under Minnesota state law starting October 14, 1989. Under the Health Care Quality Improvement Act, enacted by Congress in 1986, certain peer review activities conducted in all medical or health care settings (e.g., hospitals, HMOs, clinics) are exempt from liability for damages under most federal laws. This immunity for peer review activities conducted on or after October 14 will apply to all states that have not "opted out" of the law (and Minnesota has not).

The Health Care Quality Improvement Act is an attempt to relieve some of the fear of antitrust liability that haunts physicians and hospitals engaging in peer review. This fear climaxed with the United States Supreme Court's ruling in *Patrick v. Burget.* In that case, the Court held that physicians who conducted a bad faith peer review were liable for treble damages (totaling some $2.2 million) for their actions.

In enacting the Health Care Quality Improvement Act, Congress recognized this antitrust problem. As Congress found, "The threat of private money damage liability under federal laws, including treble damage liability under federal antitrust law, unreasonably discourages physicians from participating in effective professional peer review." The law seeks to lift the threat of civil monetary damages in cases where good faith peer review is undertaken. A second section of the law requires reporting of peer review and related actions to a national practitioner data bank, in an effort to guard against incompetent physicians moving from state to state and hiding their past performance.

As discussed more fully below, although the statute provides some immunity, it does not bar a repeat of the *Patrick* lawsuit. In that case, the physicians appeared to have initiated the peer review process merely to drive away a competitor they disliked. This is the essence of "bad faith" peer review, which the Court held violated the antitrust laws. This type of "bad faith" peer review remains illegal under the new law.

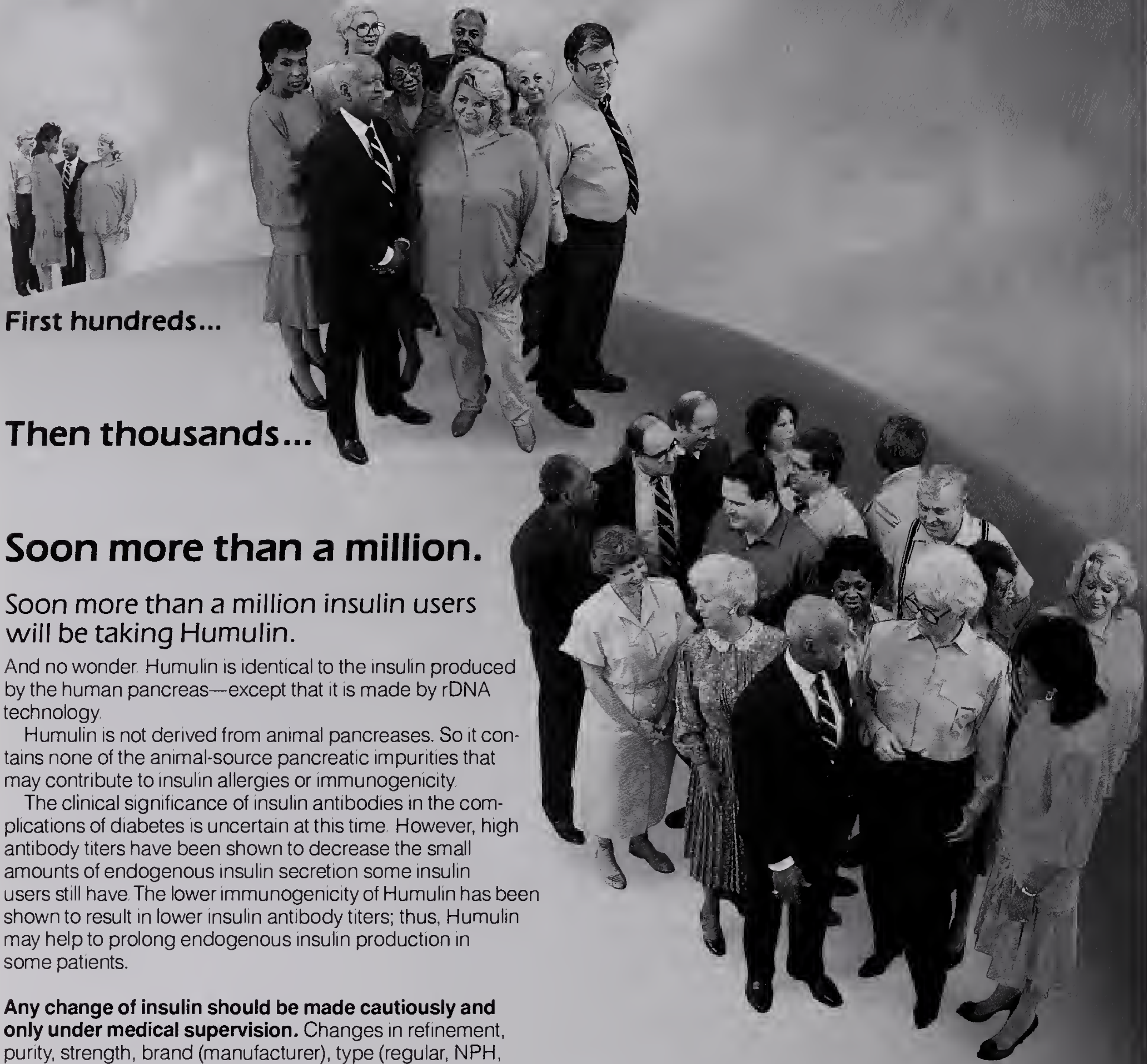
The immunity section of the law uses broad language, but specialized definitions effectively narrow its application. The law provides that 1) if a professional review action 2) of a professional review body 3) meets all of a certain list of standards, then 4) the professional review body, its staff, people under contract to the body, and any person who participates with or assists the body with respect to the action 5) shall not be liable in damages 6) under most laws of the United States, any state, or any political subdivision with respect to the action. The limitation of each of these phrases is discussed below.

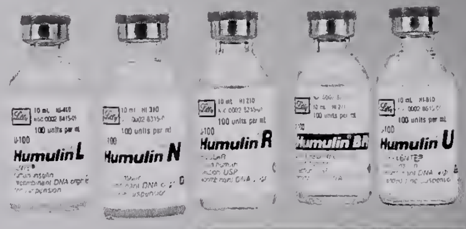
1. A professional review action. The law grants immunity for an action or recommendation "that is based on the competence or professional conduct of an individual physician" (whose conduct affects or could affect adversely the health or welfare of a patient or patients), and that affects (or may affect) adversely the clinical privileges, or membership in a professional society, of the physician. "Competence or professional conduct" is not defined and may be the subject of lawsuits. In many cases, however, there may not be any doubt.

The statute specifically eliminates certain factors from consideration. These exceptions make it particularly important for peer reviewers to be certain their activity is carefully considered and not being undertaken for an improper reason. Under the law, "an action is not considered to be based on the competence or professional conduct of a physician if the action is primarily based on:

- ► the physician's association, or lack of association, with a professional society or association;
- ► the physician's fees or the physician's advertising or engaging in other competitive acts intended to solicit or retain business;
- ► the physician's participation in prepaid group health plans, salaried employment, or any other manner of delivering health services whether on a fee-for-service or other basis;
- ► a physician's association with, supervision of, delegation of authority to, support for, training of, or participation in a private group practice with a member or members of a particular class of health care practitioner or professional; or
- ► any other matter that does not relate to the competence or professional conduct of a physician."

The immunity applies only to reviews relating to a *physician,* defined as a person who holds an





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The review must relate to patient welfare (which is not defined, but again, may be obvious in most situations), and it also must adversely affect the physician's clinical privileges or membership in a professional society. Clinical privileges include "privileges, membership on the medical staff, and the other circumstances pertaining to the furnishing of medical care under which a physician . . . is permitted to furnish such care by a health care entity." Health care entity means a hospital or an entity (including an HMO or group medical practice) that both provides health care services and also follows a formal peer review process for the purpose of furthering quality health care.

The language contains many twists and exceptions, but in essence, it says that a "professional review action" should include the typical peer review of a physician.

2. A professional review body. In order to qualify for the immunity, the peer review must be undertaken by a health care entity (see above) or by "the governing body or any committee of a health care entity which conducts professional review activity, [or] any committee of the medical staff of such an entity when assisting the governing body in a professional review activity." The law defines professional activity as an activity "with respect to an individual physician:

► to determine whether the physician may have clinical privileges with respect to, or membership in, the entity;
► to determine the scope or conditions of such privileges or membership; or
► to change or modify such privileges or membership."

In other words, in order to gain immunity, the peer review organization must be involved in determining membership or clinical privileges in a clinic, hospital, HMO, or medical society.

3. Meets all of a list of standards. The statute provides that in order for the immunity to apply, "a professional review action must be taken:

► in the reasonable belief that the action was in the furtherance of quality health care,
► after a reasonable effort to obtain the facts of the matter, after adequate notice and hearing procedures are afforded to the physician involved or after such other procedures as are fair to the physician under the circumstances, and
► in the reasonable belief that the action was warranted by the facts known after such reasonable effort to obtain facts and after providing the notice and hearing."

The statute is fairly specific in the minimum due process rights to be afforded a physician as part of the disciplinary process. At a minimum, this process must include:

► written notice of the proposed discipline;
► reasons for the proposed action;
► a statement in the written notice that acknowledges the physician's right to request a hearing on the proposed action and a time limit of not less than 30 days within which to request such a hearing;
► if a hearing is requested, a second notice must be sent to the physician stating the place, time, and date for the hearing to be held not less than 30 days after the notice, as well as a list of witnesses expected to testify at the hearing on behalf of the health care entity;
► if a hearing is requested, it is to be held before a mutually acceptable arbitrator or before a hearing officer or a neutral panel of persons appointed by the health care entity who are not in direct economic competition with the physician;
► during a hearing, the physician has the right to be represented by an attorney;
► the physician has the right to have a record made of the hearing and to call, examine, and cross-examine witnesses, present evidence, and submit a written statement at the close of the hearing;
► upon completion of the hearing, the physician has the right to receive a written recommendation of the arbitrator or the panel, including a statement of the basis for the recommendation. The physician also has the right to receive a written decision by the health care entity and a statement explaining the basis for that decision.

The statute allows the physician to waive these due process conditions and also provides immunity for modified due process conditions. However, any departure from the conditions listed in the statute may result in a court challenge as to whether sufficient due process was given to trigger the immunity provisions.

There is also a specific exemption from the detailed due process requirement for cases that involve immediate suspension or restriction of clinical privileges in the case of health emergencies, so long as the physician is given sufficient notice and a hearing on the suspension or restriction. Further, a suspension of less than 14 days, during which an investigation is being conducted to determine the need for a peer review action, is permissible without affording the due process rights prior to the suspension.

"Due process" requirements such as these tend to be the subject of lawsuits. Plaintiffs' attorneys relish such phrases as "reasonable belief," "quality health care," and "reasonable effort," since no one knows what they mean until a court rules in each situation. However, the statute contains a specific provision that the defendant may be awarded attorneys' fees if the statutory procedures are followed. This allowance of defendants' attorneys' fees may offset the potential for lawsuits.

4. The professional review body, its staff, people under contract to the body, and "any person who participates with or assists the body with respect to the action."

This section grants the immunity to a broad group of people.

The law also contains a specific provision that no witness or other person who provides information to the professional review body regarding the competence or professional conduct of a physician may be found liable for providing the information unless the information is false and the person knew it was false.

5. Shall not be liable in damages. This phrase eliminates the risk of monetary awards, which are tripled under the antitrust laws. However, a real risk remains for declaratory or injunctive suits, e.g., in cases where the physician seeks to prohibit a peer review body from stripping his or her hospital privileges. In these cases, a plaintiff may be awarded legal fees and costs.

6. Under most laws of the United States, any state, or any political subdivision. Effective October 14, 1989, participants in any new peer review activity will be immune from liability if all the above conditions are met. However, two major exceptions to this law remain. First, the law does not provide immunity from civil rights damages. Civil rights laws not only prohibit discrimination, but also have proven to be extremely fertile ground for litigation. Second, the state and federal governments are still allowed to bring antitrust damage suits. However, the law does at least prevent private antitrust damage suits.

Exception: All of the above protection is suspended for a three-year period if a health care entity fails to meet the National Data Bank reporting requirements contained in the law. Generally speaking, each entity must report any activity showing that a physician is under investigation for possible medical malpractice, including such actions as limitation of clinical privileges, restriction of the medical license, as well as malpractice settlements and/or judgments. This information will be collected on a federal data base. Specific requirements, including the information to be reported, the form of reporting, timing, and other details, are set forth in the law and will be more specifically discussed in proposed regulations to be published in the *Federal Register* later this year.

Finally, each hospital is required to request an information verification on any new physician, and all other physicians every two years, to review the data base for information regarding the physician's competency. Ostensibly, this will prohibit incompetent physicians from moving from place to place, leaving their bad records behind them. However, this national data base and checking on physicians may significantly increase the number of lawsuits from peer review activities. Under this law, a physician could find it very difficult to obtain privileges to practice at a hospital or elsewhere if the physician's name appears on the data base. Since the stakes are higher, physicians may fight the initial review more strenuously, including filing suit more often.

In conclusion, the Health Care Quality Improvement Act offers a new opportunity for immunity for peer review activities begun on or after October 14, 1989, if certain minimum due process requirements are met. Unfortunately, some litigation undoubtedly still will occur due to ambiguous language in the statute and because of higher stakes. This law will provide immunity for some good faith peer review activities where none existed before, and it should eliminate the potential for treble damages in an antitrust lawsuit brought by a physician who was the subject of peer review. Copies of the law and additional information are available from the Minnesota Medical Association. Contact Karen Marty or Kristin Larson at (612) 378-1875. ■

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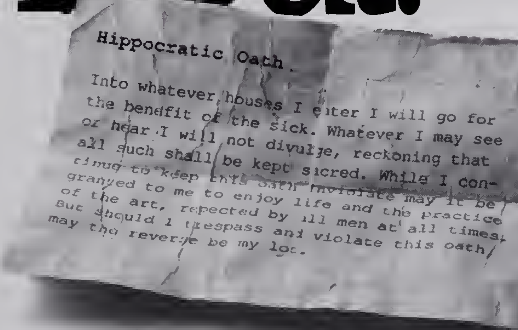

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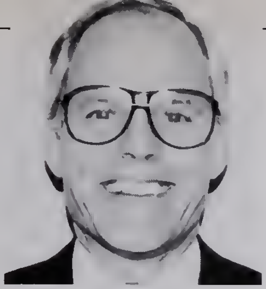
ROBERT D. CHRISTENSEN, M.D.

PRESIDENT'S LETTER

Balancing Art and Science to Preserve Medicine's Professionalism

The practice of medicine is a delicate balance between art and science. Clinical skills and scientific knowledge are essential, but the art of medicine lies in personal skills—a caring relationship with patients, an ability to communicate clearly, a flash of intuition that leads to diagnosis. Our challenge as physicians is to maintain that balance in the face of increasing deprofessionalization.

In his inaugural address this summer, the new president of the American Medical Association, Alan R. Nelson, M.D., called on us to "remain physicians in the full sense of our calling and not become mere technicians, without the bond between us and our patients that makes our profession so rewarding and that forms the basis of the special privilege that society grants to us."

Deprofessionalization threatens to upset the balance of medicine and to relegate the physician to the role of technician rather than healer. "A high degree of occupational autonomy" is a key element in professionalism, according to Ralph R. Reed, M.D., and Daryl Evans, Ph.D., in their article, "The Deprofessionalization of Medicine" (*JAMA,* December 11, 1987). But the physician's autonomy is being gradually diminished by economic pressures from health care administration, megacorporations, the licensure of paraprofessionals, and malpractice litigation. The mystique of the healer is being eroded by forces that make health care more impersonal.

Traditionally, a patient could be confident that the physician was in charge of medical care. Now that confidence is fading. A recent opinion survey by the AMA discovered disturbing changes in the public's perception of physicians. Less than half of the public feels that physicians "usually explain things well to their patients"; seven in 10 think physicians don't spend enough time with their patients; three out of four think doctors keep patients waiting too long; and six out of 10 think "doctors don't care about people as much as they used to."

"Professionalism means that our patients can trust us to show compassion and altruism as well as medical knowledge."

It is up to us, as physicians, to reverse this trend in public opinion, to hold fast to our vision of the physician as the patient's advocate, as one who places the welfare of patients above any financial considerations.

We can begin by recognizing how important a caring attitude and personal concern are to our patients. Lacking detailed medical knowledge, most patients judge their treatment on personal rather than clinical factors. They want to be treated as whole persons, not examples of disease. Listening to our patients, giving them enough information, minimizing their time in the waiting room, and allowing them a voice in choosing treatment are all ways to build a trusting relationship.

This personal relationship may be as important as correct medical treatment in healing the patient. According to studies cited at the 1989 National Health Forum in Baltimore, if there is a good relationship with the physician, the patient is more likely to follow the prescribed course of treatment, more likely to understand directions, more likely to have a good clinical outcome, more likely to be pleased with treatment, and less likely to sue, regardless of the outcome.

Another aspect of professionalism cited by Reed and Evans is that "members of the profession set the standards of knowledge and expertise." It is important for physicians to resist pressures by the government or corporations to limit care for financial reasons. Physicians must remain in full control of setting practice standards, always bearing in mind the importance of personal skills and human values in the practice of medicine. As part of its major quality assurance initiative, the AMA plans to research the "art of care" and to measure the "interpersonal exchange" and the "special sense" or intuition of the physician, Dr. Nelson told his physician audience. He said the initiative will not be "cookbook" medicine but will emphasize the art as well as the science of medicine.

In concluding his address, Dr. Nelson quoted Tinsely R. Harrison, M.D.'s text, *Harrison's Principles of Internal Medicine:* "No greater

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Edwards from page 564

REECE: *So the psychological barriers of surgically exposing the heart had been breached?*

EDWARDS: That's right. The seed of the idea of operating on hearts had been planted about the same time in Philadelphia. John Gibbon had the idea that he could stop the heart in order to operate on it. This led to the idea that a machine could be created to replace the heart and lungs while the heart was opened and operated on.

When I was working in Rochester, Dr. Clarence Dennis and his group at the University of Minnesota operated on two patients with the use of a heart-lung machine they had devised. Unfortunately, both patients died, but these two operations opened the field.

Concurrently, Dr. John Lewis, also at the university, was working with the concept that a patient cooled to a safe degree required less blood and oxygen than at normal temperatures. Lewis and his team cooled patients profoundly and instituted circulatory arrest. During that short period of arrest, they opened the right atrium and closed an atrial septal defect. But they had to hurry, and it was not a procedure that could be used in opening the ventricle and dealing with some of the intricate problems that occur with congenital defects. So the Minnesota investigators decided they had to find some way of using an oxygenator and a pump.

REECE: *When was the pump oxygenator first used?*

EDWARDS: It was first used at the University of Minnesota in 1951. In 1952, Philadelphia surgeon John Gibbon had devised a good pump oxygenator. But unfortunately, he didn't have a full team working with him. He used his device successfully in one case, an atrial septal defect.

Things remained idle with the Gibbon device until John Kirklin at the Mayo Clinic got the plans for Gibbon's pump oxygenator. Kirklin developed the machine, which was put into use in March of 1955. From Kirklin's work came many refinements and other developments.

REECE: *From listening to you, I gain the impression that after World War II a group of bold young surgeons began to attack the frontiers of surgery in multiple places, including the Mayo Clinic, the University of Minnesota, and Philadelphia. In short, there was a youth movement among surgeons that produced a leap forward.*

"At Mayo, in the early '50s, we had a true integration of the various disciplines."

EDWARDS: There was a youth movement. This was evident to me in many ways. When the University of Minnesota was doing its work and the Mayo Clinic had attracted attention worldwide, many surgical teams from around the world came through Minnesota to see what heart surgery was all about. These visiting teams all tended to be alike. The lead man would be in his 50s. He would stand in the front row. Behind him would stand two or three younger physicians—in their 30s. The senior physician did all the questioning and discussing. The irony of the situation impressed me: These age-based hierarchies with their pecking orders had come to see the work of young men.

REECE: *From the sounds of it, these American surgeons had created dynamic interacting groups of young people from different disciplines working hand in glove with each other.*

EDWARDS: That was certainly true in my experience at the Mayo Clinic. In other places, people in different fields created the illusion that their field was a self-contained activity that had little relationship with anything else. No other field was more important than theirs. At the Mayo Clinic, there was quite a different attitude. We had internists, pathologists, and physiologists working together. Then came the surgeons and the pediatric cardiologists. In the early days, pediatric cardiology was not yet a recognized specialty. But the exchange between people in various disciplines played a very important role in the melding of a team that could identify needs, that could come up with diagnostic methods that recognized complications, and that could tell us how to avoid complications. At Mayo, in the early '50s, we had a true integration of the various disciplines. It was a heady time—a time of excitement, a time of great achievements accomplished through teamwork.

REECE: *But you left Mayo in 1960 and came to Miller Hospital in St. Paul. What were your feelings as you headed 70 miles up the road?*

EDWARDS: I had mixed feelings. I loved the Mayo Clinic, and I loved my work there. I left the Mayo Clinic because I felt I couldn't afford not to take the opportunity in St. Paul. It offered me two things: the chance to see great amounts of cardiology material and adequate time to spend in my special field of interest over and above the day-to-day work. This attracted me. It also attracted young people who came to work with us to learn about cardiovascular disease and congenital conditions from pathologic specimens.

In the past 29 years, about 200 students and 200 physicians have come to Miller and now United Hospital. The physicians were in specialized training in such fields as pediatric cardiology, cardiovascular radiology, and cardiovascular surgery. Our program grew in the number of people coming in and in the number of publications it generated. And the collection of catalogued material available for study grew with the program.

The program started in one room in Miller Hospital. Then, when Miller Hospital became United Hospital, the administration recognized the program's stature and has developed a special department in the St. Paul Heart and Lung Center, the Jesse E. Edwards Registry of Cardiovascular Disease, where we have a collection of about 10,000 specimens, mostly heart and surgical specimens of one type or another, adequately catalogued for easy retrieval and available for studies. I call our registry the Reservoir for Learning.

REECE: *And out of this reservoir for learning have come your textbooks and atlases, which are read worldwide. This museum of hearts is your legacy, is it not?*

EDWARDS: Yes, and I trust the registry will remain a part of the hospital in the future. The hospital contributed $1.25 million to an endowment and expected to have the initial contribution doubled by contributions from various sources. Dr. Milton Hurwitz, a St. Paul internist, very generously assumed the lead role in fund-raising to achieve this goal.

I am not the current administrative head of our program. I'm working at my bench, but the administrative head is Dr. Jack Titus, with whom I've had an interesting relationship. When I was at the Mayo Clinic, he was one of the fellows, and I was his thesis adviser. His thesis was on the conduction tissue in ventricular septal defects. Through Titus' work, surgeons learned to avoid conduction tissue during operations. When I left the Mayo Clinic, he joined the staff there as a cardiac pathologist for a number of years before he was attracted to Baylor Medical College in Houston, where he served as chairman of the pathology department for 15 years. Now he has moved to St. Paul and is the director of the cardiac registry. At one time he was my student; now he is my boss.

REECE: *You believe the dead have much to teach the living. You've said that an autopsy is analogous to a black box on an airplane that has crashed. Are you disturbed by the declining importance of the autopsy in this age of modern technology? Indeed, many people feel that the autopsy is no longer necessary.*

EDWARDS: I'm terribly disturbed by this. The history of human development is referred to as ontological development. Each individual is a piece of the history of the human race. For long periods in history, medical concepts were based on imagination. Then into medicine came the examination of organs and tissues and the development of microscopes so that we could look more closely at tissues than we could with the naked eye. That is the field of pathology. Pathology gives us the opportunity to get at facts that could not otherwise be derived. Pathology gives us factual understanding by allowing us to see things.

Without the autopsy, an individual in training misses something fundamental. The various diagnostic tools that are now so accurate were derived by correlating images with pathologic states. Coronary arteriography is read accurately because it's based on the foundation of understanding what the pathology of the coronary artery is or may be. The reading of an electrocardiogram is based on the foundation of correlating pathologic states with these patterns in electrocardiograms. The same is true with echocardiographies and even with plain X-rays.

Now the young cardiologist sees various images on paper or on a screen. From this the cardiologist makes a diagnosis that something's wrong in a particular anatomic area of the heart. He or she may be reasonably accurate but may have very little concept of the actual structural abnormality.

For the surgeon to train without the opportunity of seeing and feeling the various lesions and learning the anatomy of the heart is disturbing. Surgeons should know what they are looking at during an operation. They must know what not to injure. Surgeons can learn these lessons better from the autopsy specimen.

REECE: *So there's no substitute for direct visualization and the sensation of feeling and probing the actual anatomical site?*

EDWARDS: There is no substitute for it. People say there's so much to learn during medical training. That's true. There's a lot more to learn today than when I was in the early learning stages. But there's no excuse for putting aside the very fundamental understanding of the anatomy of the heart and its conditions. You must understand the anatomy and pathology of diseased states when you perform diagnostic procedures.

REECE: *There's also no substitute for a collection of catalogued specimens. It's a much more direct approach than a trail of paper or audiovisual images.*

EDWARDS: That's right. For example, in today's society, most patients who have surgically correctable lesions will undergo operations to correct them. They don't all live. There's a lot to be learned from an autopsy on such a patient. Why the patient didn't survive is

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the paramount question. But we still need to be able to see what this basic condition was like before the surgery altered it. The registry has specimens going back in time that are unaltered by surgery. You can go back in history and look at mitral stenosis or coarctation of the aorta, whatever condition you name that is usually operated today, and see it in its natural state.

"There's no excuse for putting aside the very fundamental understanding of the anatomy of the heart and its conditions."

REECE: *Where do you get the hearts for your registry?*

EDWARDS: They come from many institutions. Our primary source is the Twin Cities. Many hospitals in the Twin Cities contribute specimens to our collection, but we also get them from other sources throughout Minnesota, other states, and even out of the country.

REECE: *So you examine hearts with mysterious anatomical lesions, hearts of people who died suddenly, hearts of children with congenital defects, hearts of adults with strange myopathies and dystrophies?*

EDWARDS: Yes. Among the specimens we receive are hearts of people who have died suddenly after presumably being well. These come to us from various sources, including medical examiners' offices. We examine these hearts to give an opinion as to whether or not there's a cardiac abnormality, and if so, whether or not it represents a reasonable explanation for the sudden death.

REECE: *Through your work in training these many students, surgeons, and cardiologists, you've directly and indirectly had a profound influence on the development of cardiovascular surgery and cardiology itself. How many of your protégés are practicing here in the Twin Cities?*

EDWARDS: I can't give you an exact number, but I think it's correct for me to say that we have at least one graduate in every thoracic surgical group in the Twin Cities and in each of the two major cardiology groups in private practice in the Twin Cities. We also have representation in the Department of Pediatric Cardiology and the Department of Cardiovascular Radiology at the University of Minnesota.

REECE: *And in leading heart centers around the world?*

EDWARDS: Yes, we have graduates in many countries around the world.

REECE: *From this interview I've learned that you consider certain fundamental things of value. These include the importance of vigorous young physicians with a sense of curiosity, the value of the autopsy, and the importance of having historical reservoirs of information you can refer back to.*

What else do you believe to be of fundamental importance to the learning process and the development of medicine?

EDWARDS: Having a clear and curious mind is crucial. Incessant questioning is important. There's always a danger that the old-timer will get into a rut thinking he's got the proper explanation for something and maybe he hasn't. It's vital for young people to question some of the old teachings. If you can maintain the attitude that you haven't seen everything yet in the field, that there's more to come, it will help you stay young and aware.

REECE: *You also believe in clarity and brevity of written expression. You believe, in short, if you have something to say, you should say it; you should stop when you've said it; and you should say what you've said. Consequently, you consider the introduction and summary the most vital parts of the medical paper.*

EDWARDS: Yes, I do. First of all, you write a paper primarily for someone to read it. In order to get a reader, you need some salesmanship. The salesmanship comes from the title and the introduction. Those two elements will spark the reader's interest in finding out what's on the inside. I say that the introduction is comparable to the picture of the cornflakes on the cereal box. When you open that box, you expect to get what the picture says you're going to get. In a busy world we are all apt to pick up the summary to get what the introduction has promised us. An appropriate summary will actually give us the essence of the paper. The body of the paper is there to support the summary.

REECE: *Having summarized the summary, perhaps we should end.* ■

President's Letter

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opportunity, responsibility, or obligation can fall to the lot of a human being than to become a physician. In the care of the suffering he needs technical skill, scientific knowledge, and human understanding. He who uses these with courage, with humility, and with wisdom will provide a unique service for his fellow man and will build an enduring edifice of character within himself."

This traditional vision of the physician is a standard worth fighting to uphold, in spite of a growing spirit of commercialism and the constraints of regulation. Professionalism means that our patients can trust us to show compassion and altruism as well as medical knowledge. Only by embodying high ethical principles and placing the welfare of our patients before any other consideration will we preserve our professional freedom and the delicate balance between the art and science of medicine. ■

'U' MEDICAL CHAIR

R. Morton (Chip) Bolman III, M.D., who in January succeeded Stuart Jamieson, M.D., as head of chest and heart surgery at the University of Minnesota, in August became the first holder of the million-dollar C. Walton and Richard C. Lillehei Endowed Chair in Thoracic and Cardiovascular Surgery. The endowment grew from private donations solicited by the C. Walton and Richard C. Lillehei Surgical Society and matching funds from the university's permanent fund.

CHAIR ON AGING & LONG-TERM CARE

Robert Kane, M.D., dean of the University of Minnesota's School of Public Health, on September 1 assumed the nation's first chair in aging and long-term care. The chair was established by contributions to the university for researching and testing long-term health care options. Kane will continue as dean of the school until his replacement is hired.

DIABETES-RELATED HORMONE

University of Minnesota and Swedish researchers have discovered a hormone secreted in the pancreas that appears to have an integral part in the development of Type 2 diabetes (also called adult-onset or non-insulin-dependent diabetes). The hormone—islet amyloid polypeptide, or IAPP—apparently impairs the ability of insulin to regulate the blood sugar level.

The researchers are Drs. Kenneth H. Johnson and Timothy O'Brien, University of Minnesota veterinary pathologists, and Drs. Per Westermark, and Christer Betsholtz, Swedish diabetes researchers. Their findings were published in the August 24 *New England Journal of Medicine*.

HEART ASSIST PUMP

An implantable heart assist pump originally built and tested in the 1960s and '70s has been given new life with an electromagnetic drive system designed by Frank Dorman, a scientist in the mechanical engineering department of the University of Minnesota's Institute of Technology. The university has applied for a patent on the drive system and has granted an exclusive worldwide license for its use to Bio-Medicus of Eden Prairie, Minnesota.

Dorman was part of a team of university engineers and surgeons who worked with Medtronic in the 1970s to develop an implantable blood pump that could take over part of the heart's workload, while the patient recovers or while a donor heart is located and transplanted. Despite extensive testing of the Hemodyne pump in both animals and humans, Medtronic decided to end the program in the late 1970s, in light of declining federal support and a limited market.

Testing of the new Hemodyne pump will begin at another medical institution within the next 12 months, Bio-Medicus president Jim Lyons said.

MMPI UPDATED

The Minnesota Multiphasic Personality Inventory (MMPI), one of the world's most widely used psychological tests, has been revamped 50 years after its inception to eliminate gender bias and outdated references in the 566 true-false test questions. About 100 items were added and are designed to identify some of today's psychological problems, such as achievement-oriented ("Type-A") behavior, drug abuse, and attitudes about mental health treatment. The new test has 567 true-false questions and maintains the same style and intent as the original, with test subjects answering questions on their feelings, symptoms, attitudes, and beliefs.

The test was updated over a seven-year span by psychology professors James Butcher and Auke Tellegen of the University of Minnesota , John R. Graham of Kent State University, and W. Grant Dahlstrom of the University of North Carolina.

HCMS PRESIDENT-ELECT

Eugene Ott, M.D., of Edina, Minnesota, has been elected president-elect of the Hennepin County Medical Society (HCMS). Approximately 1,000 votes were cast and only five votes separated Ott from his opponent, Joseph Cella, M.D. It was the closest election in HCMS history.

As president-elect, Ott, a family practitioner at the Hennepin County Medical Center, becomes an official spokesperson for HCMS. When Ott assumed the office of president-elect on October 1, former president Alvin Schultz, M.D., became chairman of the board, and former president-elect A. Stuart Hanson, M.D., moved into the presidency.

HCMC INTERNAL MEDICINE CHIEF

Roland H. Ingram, Jr., M.D., has been appointed chief of internal medicine at Hennepin County Medical Center (HCMC). Ingram has been the Parker B. Francis Professor of Medicine at Harvard Medical School since 1980 and concurrently served as senior physician at Brigham and Women's Hospital, Boston, since 1982.

As chief of HCMC's internal medicine department, the largest in the medical facility, Ingram will supervise 60 staff physicians and 69 residents. Ingram replaces Alvin Schultz, M.D., who retired from that position last year.

HEALTH CARE COUNCIL CHAIR

The Minnesota Health Care Council in August appointed Jane C. Campion, administrator of the Mayo Foundation, chairperson of the council.

Campion, a staff administrator in the planning services office of the foundation, has broad experience with alcohol and drug health problems and programs. She is a lecturer, writer, and consultant in these areas.

The Minnesota Health Care Council was established by the Minnesota Department of Trade and Economic Development (DTED) to develop and market Minnesota's health care industry, products, and services to national and international markets.

UNITED HEALTHCARE IN DULUTH

United HealthCare Corp. in September opened its third northeastern Minnesota office in less than two years. The new Duluth office will initially employ 22 workers who will process and audit hospital claims for members of United's network of 17 HMOs. United, which has a 40-employee office in Hibbing and an International Falls office with more than 100 employees, plans to hire another 20 to 30 in the Duluth office by the end of this year and employ more than 100 by the end of 1990.

MEDTRONIC NEWS

Medtronic, Inc., which in August introduced a new pacemaker and had another pacemaker approved for marketing, reported record sales for its first quarter ending July 31. The Fridley, Minnesota-based medical products company posted sales of $191.9 million, up 9.1 percent from the same period last year. Its net earnings for the quarter were $24.4 million, down 3.8 percent from the $25.4 million net earnings for the same quarter last year.

In August, Medtronic introduced for sale its single-chamber Legend pacemaker, the first pacemaker to record a wearer's heartbeats for later study by a physician. The company also announced that Synergyst II, its new dual-chamber rate-responsive pacemaker, had been approved for commercial marketing by the U.S. Food and Drug Administration.

DEVICE MAKERS CRITICIZED

A public-interest group associated with activist Ralph Nader criticized 33 firms in August for not reporting deaths and serious injuries involving the firms' medical devices. Among those firms was Aequitron of Plymouth, Minnesota, which was criticized by the Public Citizen Health Research Group for not reporting to the U.S. Food and Drug Administration (FDA) the deaths of four infants who were being monitored by its respiratory-warning device. FDA guidelines require companies to report within five days if a malfunction results in death or serious injury.

Aequitron Vice President Robert Samec rebutted the claim by saying the company initially believed it was exempt from reporting the four infants' deaths because it was never determined that they died or were injured as a result of the Aequitron monitor, which sounds an alarm when a sleeping infant stops breathing.

AIDS NEWS

► Researchers at the National Institute of Allergy and Infectious Diseases revealed in August strong evidence that indicated for the first time that the drug AZT can significantly delay the onset of AIDS in people showing mild symptoms of immune system damage. Previously, AZT had only been proven effective in patients with full-fledged AIDS symptoms.

The 29-medical center study, coordinated by Margaret Fischl, M.D., of the University of Miami, may prove to benefit the estimated 100,000 to 200,000 people with mild symptoms of AIDS.

► The U.S. Food and Drug Administration in August granted approval to market the first diagnostic test to detect HIV antigens instead of antibodies to the virus. The test, an enzyme immunoassay developed by Abbott Laboratories, may be able to detect HIV presence earlier than do current tests designed to detect antibodies.

► Treating AIDS patients has proven to be financially overwhelming to inner-city hospitals, concluded a study by the National Public Health and Hospital Institute. The study, published in the August 11 *Journal of the American Medical Association,* examined 1987 data from 276 hospitals in 39 states. It showed that 44 percent of AIDS patients were covered by Medicaid, 29 percent were covered by private insurance, 23 percent were indigent or uninsured, 2 percent were covered by Medicare, and 2 percent were prisoners.

With average daily expenses of $681 per AIDS patient and average daily payments of $545, hospitals lost an average of $136 per patient per day. Public hospitals lost an average of $218 per AIDS patient per day, while private hospitals lost $92 per day for each patient treated. A patient's yearly cost averaged $17,910.

CYSTIC FIBROSIS-CAUSING GENE

The gene that causes cystic fibrosis was discovered in August by Francis Collins, M.D., of the University of Michigan at Ann Arbor, Lap-Chee Tsui, M.D., of the Hospital for Sick Children in Toronto, and colleagues. The discovery is hoped to pave the way to learning how the disease attacks the body and could eventually lead to life-saving treatment. About 30,000 people in the United States have cystic fibrosis, and 1,000 to 1,200 new cases are diagnosed each year.

PARKINSON'S DRUG

In what is apparently the first example of a drug delaying the symptoms of a neurological disease, researchers reported in August that deprenyl slows the progress of Parkinson's disease. James W. Tetrud, M.D., and J. William Langston, M.D., of the California Parkinson's Foundation in San Jose, studied 54 patients and found that deprenyl significantly delayed the onset of symptoms requiring treatment with the drug L-dopa, which is the standard therapy for Parkinson's disease.

Twenty-seven patients took deprenyl, which is believed to prevent brain cells from dying, and 27 took placebos. The deprenyl patients lasted an average of 549 days before they needed L-dopa, while the placebo patients needed L-dopa after an average of 312 days. The drug also slowed the progress of the disease by 40 to 83 percent per year.

Tetrud and Langston cautioned, however, that the study is small, and only an autopsy would prove if, in fact, the drug prevented brain cell loss.

BREAST CANCER DEATHS

The death rate for women with breast cancer is going up, according to the Centers for Disease Control (CDC). In 1986, the most recent year for which statistics are available, 40,354 women died of breast cancer, according to the CDC. The annual death rate, 32.8 per 100,000, is up 5 percent from 1979, when it was 31.1.

The National Cancer Institute estimates that 75 percent of women diagnosed as having breast cancer live at least five years.

MORE FRESHMEN, LOWER MCAT SCORES

Freshman enrollment in U.S. medical schools in 1988-89 rose for the first time since 1981, despite a continuing decline in the number of applicants, says a report in the August 25 *Journal of the American Medical Association.*

Medical schools accepted one freshman student for every 1.6 applicants (a 64 percent acceptance rate)—the lowest ratio of applicants to enrollment openings ever, according to the authors, Harry S. Jones, M.D., and colleagues at the AMA. "During the past five years, there has been a slight decline in average MCAT scores of accepted applicants," they reported. "However, there does not seem to be a significant decrease in average grade point averages for accepted students."

There were 16,781 first-year students in 1988-89, 95 more than in the previous year. However, total enrollment for 1988-89 decreased by 592 students to 65,150, and there were 241 fewer graduates.

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Contraindications: Renal diseases, and patient's sensitive to the drug. In view of the limited and inadequate information at hand, no precise tabulation can be offered of additional contraindications.

Warning: Generally, this drug is not proposed for use in females and certainly must not be used during pregnancy. Neither is this drug proposed for use in pediatric, geriatric or cardio-renal patients with gastric or duodenal ulcer history. Nor should it be used in conjunction with mood-modifying drugs such as antidepressants, or in psychiatric patients in general.

Adverse Reactions: Yohimbine readily penetrates the (CNS) and produces a complex pattern of responses in lower doses than required to produce peripheral a-adrenergic blockade. These include, anti-diuresis, a general picture of central excitation including elevation of blood pressure and heart rate, increased motor activity, irritability and tremor. Sweating, nausea and vomiting are common after parenteral administration of the drug.[1,2] Also dizziness, headache, skin flushing reported when used orally.[1,3]

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References:

1. A. Morales et al., New England Journal of Medicine: 1221. November 12, 1981.
2. Goodman, Gilman — The Pharmacological basis of Therapeutics 6th ed., p. 176-188. McMillan December Rev. 1/85.
3. Weekly Urological Clinical letter, 27:2, July 4, 1983.
4. A. Morales et al., The Journal of Urology 128: 45-47, 1982.

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October 19-21	Fifth Ramsey Trauma Conference, St. Paul
November 10	Neurology Update for the Primary Care Physician, St. Paul
November 16-18	Clinical Strategies in Primary Care Medicine, St. Paul
December 1	Mental Illness in the Mentally Retarded Patient, St. Paul
December 6-8	Annual Cardiopulmonary Medicine Update, St. Paul
1990	
February 8-10	Advanced Burn Life Support (ABLS), St. Paul
February 10	Ramsey Research Conference, St. Paul
March 2	Bioethics Conference, St. Paul
March 7-9	Eighth Annual Critical Care Conference, St. Paul
March 15-16	Family Practice Today, St. Paul
March 23	Eleventh Annual Occupational Medicine Update, St. Paul
April 5-6	Annual Obstetrics & Gynecology Update, St. Paul
April 6	ENT Update, St Paul

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For assistance with scheduling meetings or for information on future medical meetings and CME courses at the state and national level, please contact the MMA office: 2221 University Avenue SE, Suite 400, Minneapolis, Minnesota 55414; (612) 378-1875. Information for each entry is arranged by date; name of program; primary sponsor; location; contact person.

OCTOBER 1989

1-6 **Laboratory Diagnosis of Fungal Infections** Mayo Medical Laboratories; Portland Marriott, Portland, Maine. CONTACT: Martha Carey, Mayo Medical Laboratories, 200 First Street SW, Rochester, Minnesota 55905; (800) 562-1787.

2-3 **Advanced Trauma Life Support** Hennepin Faculty Associates; Hennepin County Medical Center, Minneapolis, Minnesota. CONTACT: Eugenia Kassar, 701 Park Avenue, Suite 4220, Minneapolis, Minnesota 55415; (612) 347-2075.

2-12 **Resuscitation Course** Hennepin Faculty Associates, Hennepin County Medical Center, Minneapolis, Minnesota. CONTACT: Eugenia Kassar, 701 Park Avenue, Suite 4220, Minneapolis, Minnesota 55415; (612) 347-2075.

4-7 **Principles of Colon and Rectal Surgery** University of Minnesota CME; Mayo Memorial Auditorium, East Bank campus, Minneapolis, Minnesota. CONTACT: Pat Morandi, Office of CME, Box 202, UMHC, 420 Delaware Street SE, Minneapolis, Minnesota 55455; (612) 626-5525.

5-6 **Annual Ob/Gyn Seminar** University of Minnesota CME; Holiday Inn Downtown, Minneapolis, Minnesota. CONTACT: Pat Morandi, Office of CME, Box 202, UMHC, 420 Delaware Street SE, Minneapolis, Minnesota 55455; (612) 626-5525.

5-6 **HCMC Medical Examiner Annual Forensic Science Seminar** Hennepin Faculty Associates; Hennepin County Medical Center, Minneapolis, Minnesota. CONTACT: Eugenia Kassar, 701 Park Avenue, Suite 4220, Minneapolis, Minnesota 55415; (612) 347-2075.

5-6 **New Expectations in Pre-Natal Care** Minnesota Perinatal Organization; Breezy Point Resort, Brainerd, Minnesota. CONTACT: Minnesota Perinatal Organization, 2221 University Avenue SE, Suite 400, Minneapolis, Minnesota 55414; (612) 378-1875.

6 **Advanced Concepts in Cardiac Pacing** Abbott Northwestern Hospital; Marriott City Center, Minneapolis, Minnesota. CONTACT: Education Services, Suite 60, Minneapolis Heart Institute Foundation, 920 East 28th Street, Minneapolis, Minnesota 55407; (612) 863-3979.

6-7 **Allergy/Pulmonary Update 1989** Park Nicollet Medical Foundation; Naegele Auditorium, Park Nicollet Medical Center, Minneapolis, Minnesota. CONTACT: Elaine Anderson, 5000 West 39th Street, Minneapolis, Minnesota 55416; (612) 927-3703.

7 **3rd Annual Tutorial in Pediatric Cardiology for Primary Caregivers** Children's Heart Clinic; Children's Heart Clinic, Minneapolis, Minnesota. CONTACT: Harold Katkov, M.D., 106 Abbott Northwestern Medical Building, Minneapolis, Minnesota 55404; (612) 871-4660.

9-11 **Partners in Managing Type II Diabetes** International Diabetes Center; Park Nicollet Medical Foundation, Minneapolis, Minnesota. CONTACT: Cindy Poppitz, 5000 West 39th Street, Minneapolis, Minnesota 55416; (612) 927-3393.

11-13 **Internal Medicine Review Focusing on Neurology, Oncology, Pulmonary Medicine, Nephrology** University of Minnesota CME; Mayo Memorial Auditorium, East Bank campus, Minneapolis, Minnesota. CONTACT: Pat Morandi, Office of CME, Box 202, UMHC, 420 Delaware Street SE, Minneapolis, Minnesota 55455; (612) 626-5525.

13 **Anxiety Disorders** St. Paul-Ramsey Medical Center; Holiday Inn East, St. Paul, Minnesota. CONTACT: Bonnie Young, 640 Jackson Street, St. Paul, Minnesota 55401; (612) 221-3977.

13 **5th Annual Geriatrics Conference** Hennepin Faculty Associates; Hennepin County Medical Center, Minneapolis, Minnesota. CONTACT: Eugenia Kassar, HCMC, Hennepin Faculty Associates, 701 Park Avenue, Suite 4220, Minneapolis, Minnesota 55415; (612) 347-2075.

13-14 **11th Annual Adolescent Medicine and Health Care Conference** University of Minnesota CME; Earle Brown Center, St. Paul, Minnesota. CONTACT: Pat Morandi, Office of CME, Box 202, UMHC, 420 Delaware Street SE, Minneapolis, Minnesota 55455; (612) 626-5525.

13-14 **Advanced Laser Course for Gynecologists** Abbott Northwestern Hospital; Abbott Northwestern Hospital, Minneapolis, Minnesota. CONTACT: Tim Schuh, CME Office, 800 East 28th Street, Minneapolis, Minnesota 55407; (612) 863-5461.

14 **New Approaches to Locally Advanced Non-small Cell Lung Cancer** University of Minnesota CME; Radisson University Hotel, Minneapolis, Minnesota. CONTACT: Pat Morandi, Office of CME, Box 202, UMHC, 420 Delaware Street SE, Minneapolis, Minnesota 55455; (612) 626-5525.

14 **Cell Kinetics and Flow Cytometry** Mayo Medical Laboratories; Spencer Auditorium, St. Luke's Hospital, Kansas City, Missouri. CONTACT: Martha Carey, Mayo Medical Laboratories, 200 First Street SW, Rochester, Minnesota 55905; (800) 562-1787.

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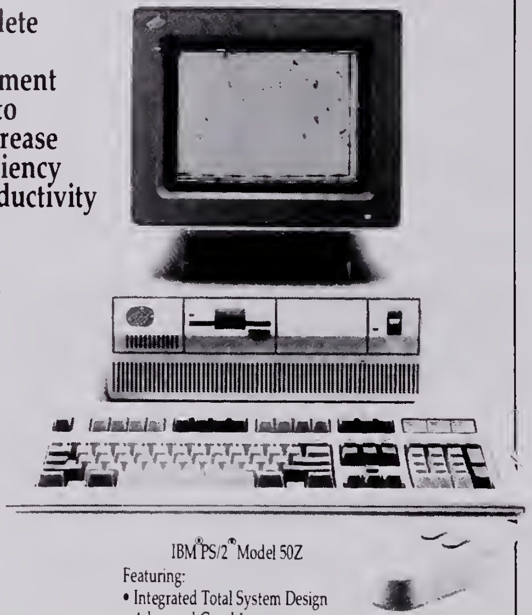

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16-19 **23rd Annual Orthopaedic and Trauma Seminar** Hennepin Faculty Associates; Hennepin County Medical Center, Minneapolis, Minnesota. CONTACT: Eugenia Kassar, HCMC, Hennepin Faculty Associates, 701 Park Avenue, Suite 4220, Minneapolis, Minnesota 55415; (612) 347-2075.

16-20 **Team Management of Diabetes Mellitus** International Diabetes Center; International Diabetes Center, Park Nicollet Medical Foundation, Minneapolis, Minnesota. CONTACT: Cindy Poppitz, International Diabetes Center, 5000 West 39th Street, Minneapolis, Minnesota 55416; (612) 927-3393.

19-21 **5th Ramsey Trauma Conference** St. Paul-Ramsey Medical Center; Holiday Inn East, St. Paul, Minnesota. CONTACT: Bonnie Young, 640 Jackson Street, St. Paul, Minnesota 55101; (612) 221-3977.

20 **Current Clinical Cardiology for Physicians and the 8th Annual Jesse E. Edwards, M.D., Lecture** United Hospital; St. Paul Heart and Lung Conference Center, St. Paul, Minnesota. CONTACT: Sue Mattson, CME Office, Health One, 2810 57th Avenue North, Minneapolis, Minnesota 55430; (612) 574-7895.

20 **2nd Annual Hematology and Oncology Conference** Hennepin Faculty Associates; Hennepin County Medical Center, Minneapolis, Minnesota. CONTACT: Eugenia Kassar, HCMC, Hennepin Faculty Associates, 701 Park Avenue, Suite 4220, Minneapolis, Minnesota 55415; (612) 347-2075.

21 **Saturday Sports Medicine Symposium** Governor's Council on Physical Fitness and Sport; Lakeview Memorial Hospital, Stillwater, Minnesota. CONTACT: Robert Johnson, M.D., 5 West Lake Street, Minneapolis, Minnesota 55408; (612) 824-1647.

21 **Endocrinology for the Primary Care Physician** Mayo Clinic, Mayo Medical School; Medical Sciences Building, Rochester, Minnesota. CONTACT: Postgraduate Courses, Section of Continuing Education, Mayo Clinic/Mayo Foundation, 200 First Street SW, Rochester, Minnesota 55905.

21-22 **Obstetrical Review for Primary Care Physicians** Mayo Clinic, Mayo Medical School; Leighton Auditorium, Rochester, Minnesota. CONTACT: Postgraduate Courses, Section of Continuing Education, Mayo Clinic/Mayo Foundation, 200 First Street SW, Rochester, Minnesota 55905.

23-25 **Clinical Reviews** Mayo Clinic; Mayo Civic Auditorium, Rochester, Minnesota. CONTACT: Postgraduate Courses, Section of Continuing Education, Mayo Clinic/Mayo Foundation, 200 First Street SW, Rochester, Minnesota 55905.

27 **3rd Annual Cardiology Conference** Hennepin Faculty Associates; Hennepin County Medical Center, Minneapolis, Minnesota. CONTACT: Eugenia Kassar, HCMC, Hennepin Faculty Associates, 701 Park Avenue, Suite 4220, Minneapolis, Minnesota 55415; (612) 347-2075.

27 **Childhood Lung Disease** University of Minnesota CME; Radisson University Hotel, Minneapolis, Minnesota. CONTACT: Pat Morandi, Office of CME, Box 202, UMHC, 420 Delaware Street SE, Minneapolis, Minnesota 55455; (612) 626-5525.

27-28 **Front-line Neurology: Primary Care Management of Patients with Neurological Problems** Abbott Northwestern Hospital; Marriott City Center, Minneapolis, Minnesota. CONTACT: Tim Schuh, CME Office, 800 East 28th Street, Minneapolis, Minnesota 55407; (612) 863-5461.

27-28 **Pediatric Innovations: Management of Stress and Lifestyle Disorders in Children and Adolescents** Park Nicollet Medical Foundation; Naegele Auditorium, Park Nicollet Medical Center, Minneapolis, Minnesota. CONTACT: Elaine Anderson, 5000 West 39th Street, Minneapolis, Minnesota 55416; (612) 927-3703.

28 **7th Annual Clinical Review** Midwestern Heart-Lung Clinic, Ltd; Hyatt Regency Hotel, Minneapolis, Minnesota. CONTACT: Wendy Wolf, 2545 Chicago Avenue South, Suite 611, Minneapolis, Minnesota 55404; (612) 871-4771.

Oct 30-Nov 3 **Team Management of Diabetes Mellitus** International Diabetes Center; International Diabetes Center, Park Nicollet Medical Foundation, Minneapolis, Minnesota. CONTACT: Cindy Poppitz, International Diabetes Center, 5000 West 39th Street, Minneapolis, Minnesota 55416; (612) 927-3393.

NOVEMBER 1989

2-3 **2nd Annual Medical Intensive Care Conference** Hennepin Faculty Associates; Hennepin County Medical Center, Minneapolis, Minnesota. CONTACT: Eugenia Kassar, HCMC, Hennepin Faculty Associates, 701 Park Avenue, Suite 4220, Minneapolis, Minnesota 55415; (612) 347-2075.

3-4 **Depression: Advances in Recognition and Treatment** Minnesota Psychiatric Society, Mental Health Association of Minnesota, Midwest Mental Health Institute; Registry Hotel, Bloomington, Minnesota. CONTACT: Tim Schuh, CME Office, 800 East 28th Street, Minneapolis, Minnesota 55407; (612) 863-5461.

4-5 **Update in Cardiovascular Diseases** Mayo Clinic, Mayo Medical School; Mayo Building, Rochester, Minnesota. CONTACT: Postgraduate Courses, Section of Continuing Education, Mayo Clinic/Mayo Foundation, 200 First Street SW, Rochester, Minnesota 55905.

5 **ENT for Primary Care Physicians** Mayo Clinic, Mayo Medical School; Radisson Hotel, Rochester, Minnesota. CONTACT: Postgraduate Courses, Section of Continuing Education, Mayo Clinic/Mayo Foundation, 200 First Street SW, Rochester, Minnesota 55905.

9-10 **Ethical Issues in Pediatric Organ Transplantation** University of Minnesota CME; Sheraton Midway, St. Paul, Minnesota. CONTACT: Pat Morandi, Office of CME, Box 202, UMHC, 420 Delaware Street SE, Minneapolis, Minnesota 55455; (612) 626-5525.

9-11 **Teaching the Medical Interview and Related Skills** Hennepin Faculty Associates; Hennepin County Medical Center, Minneapolis, Minnesota. CONTACT: Eugenia Kassar, HCMC, Hennepin Faculty Associates, 701 Park Avenue, Suite 4220, Minneapolis, Minnesota 55415; (612) 347-2075.

10 **E.T. Bell Pathology Symposium** University of Minnesota CME; Radisson University Hotel, Minneapolis, Minnesota. CONTACT: Pat Morandi, Office of CME, Box 202, UMHC, 420 Delaware Street SE, Minneapolis, Minnesota 55455; (612) 626-5525.

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Internist wanted to join active three-person internal medicine practice. Direct inquiries to: J. McCrery, M.D., 1527 Broadway, Alexandria, Minnesota 56308; (612) 762-2192. 6-12/89

Forest Lake Doctors' Clinic is seeking a BC/BE family physician, pediatrician, ob/gyn, and internist to join 10-physician multispecialty group. Located 25 miles north of Minneapolis-St. Paul, in progressive community, with excellent schools, many beautiful lakes, recreational activities, golf, fishing, boating, skiing. Local hospital directly across street. Contact: Dr. Harvey J. Frank or Dr. Doug Sill, 121 SE 11th Avenue, Forest Lake, Minnesota 55025; (612) 464-7100. 6-12/89

General Internist position in two-person private practice for new graduate or established practitioner. Gain control over your career with reasonable office, hospital, and call arrangements. Amenable to job sharing or parental leave. Early partnership. Call: Mary Jo Connolly, M.D., (612) 489-4249; or send information to: 1901 Lexington Avenue North, St. Paul, Minnesota 55113. 2-10/89

Primary Care Physician: Cambridge Regional Human Services Center, a 300-bed residential facility serving the developmentally disabled, is seeking a BC/BE full- or part-time FP or IM physician. Competitive salary, benefits, and paid malpractice. The state of Minnesota is an equal opportunity employer. Contact: David Paulson, M.D., Medical Director, Cambridge Regional Center, Cambridge, Minnesota 55008; (612) 689-2121. 2-10/89

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Moonlighting Opportunities are now available at three clinics in the Minneapolis area. Flexible hours and competitive compensation. Contact: Scott Lindblom, Physician Recruiter, Fairview Clinic Services, Suite #390, 600 West 98th Street, Bloomington, Minnesota; (612) 885-6225 or 1-800-842-6469. 2-10/89

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Family Physician needed to join group of three full-time physicians in rapidly growing community health center. Must do obstetrics. Competitive salary and benefits. Contact: Craig Redfern, D.O., or Beverley Hawkins, Ph.D., Model Cities Health Center, 430 North Dale Street, St. Paul, Minnesota 55103; (612) 222-6029. (R)

General Surgeon, Pediatrician, Ob/Gyn, Psychiatrist, Family Practitioner: Growing 16-physician, multispecialty clinic in beautiful northwestern Wisconsin seeking BC/BE specialists. Attractive partnership opportunity after one year. Come grow with us! Contact: John T. Henningsen, M.D., Indianhead Medical Group, Ltd., 1020 Lakeshore Drive, Rice Lake, Wisconsin 54868; (715) 234-9031. 3-10/89

Family Physician BC/BE needed to join three other FPs in progressive growing practice on Lake Pepin/Mississippi River in southeastern Minnesota. Excellent first-year salary/benefits in a beautiful community with multiple recreational opportunities. Contact: D. D. Pflaum, M.D., 303 South Washington, Lake City, Minnesota; (612) 345-3318. 6-1/90

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PRESCRIBING ISSUES GRANT

The Prescribing Issues Grant has been awarded to the Minnesota Medical Association by the Minnesota Board of Medical Examiners. The purpose of the grant is to describe physician prescribing practices in regard to all categories and schedules of controlled substances. The first Grant Advisory Committee meeting was held on August 29, 1989. The final report for this project will be completed in January, 1990. This grant provides a unique opportunity for input into prescribing issues, therefore, we urge you to contact any of the following Prescribing Issues Grant Advisory Committee members for comments:

James L. Anderson, M.D.
Walter Bailey, M.D.
Robert Benjamin, M.D.
Mark Brutinel, M.D.
Richard Eisenberg, Ph.D.
Lou Erickson, R.N.
Sharron Erickson
Judy Gerald
Kathryn Hirschorn, M.D.
Robert Kaplan, M.D.
Theresa Lang, R.N.
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Lee Shockley, M.D.
Peter A. Southorn, M.D.
Raymond Struck, M.D.
Jon Talsness, M.D.
Eric Tangelos, M.D.
Gary Tollefson, M.D., Ph.D.
Herbert Whittemore, R.Ph.

Lisa K. Thompson Griggs, Project Coordinator, or Kristin Larson, Project Manager, may be contacted at the MMA offices.

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Pediatrician to join existing two-person practice at the 24-physician multispecialty Winona Clinic, Ltd., in Winona, Minnesota. Located in the beautiful Mississippi River Valley of southeast Minnesota. The community, with a 40,000 population trade area, is the host of three colleges and a diverse industrial base. Send CV to: J. B. Knuesel, Administrator, Winona Clinic, Ltd., 420 East Sarnia, Winona, Minnesota 55987. 3-10/89

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Family Physician: One or two needed to replace to-be-retiring 1988 MAFP Family Physician of the Year. Excellent hunting and fishing on Minnesota's 13th largest lake. Salary plus incentives. Contact: Robert Bosl, M.D., FAAFP, Starbuck Clinic, Starbuck, Minnesota 56381; (612) 239-2231. 1-10/89

Family Physician: Work with other FPs, nurse practitioners, and mental health therapist in delivering comprehensive care to low-income ethnic groups in community clinic setting. BC/BE; ob required; competitive salary and benefit package. Call or write: Nancy Briggs, Director, North End Medical Clinic, 135 Manitoba, St. Paul, Minnesota 55117; (612) 489-8021. 1-10/89

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General Surgeon BC/BE to join a group of four general surgeons in practice of general, vascular, and thoracic surgery in northern Minnesota. First-year salary guarantee, excellent benefits, and early partnership opportunity. For details, send CV to: Duluth Surgical Associates, 1000 East First Street, Duluth, Minnesota 55805. 3-12/89

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Send Curriculum vitae and references to Robert C. Montgomery, M.D., Chairman, Physician Recruitment, 737 Broadway, Fargo, ND 58123 or for more information call 1-800-437-4010.

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Rochester, Minnesota, the Olmsted Medical Group operates eight branch offices in southeastern Minnesota. The affiliate hospital recently underwent a complete renovation and expansion project. Olmsted Medical Group offers a competitive salary and comprehensive benefit package including malpractice insurance, flexible benefits plan, 401K, and profit sharing. Send CV to: Olmsted Medical Group, Attn: Susan Schuett, 210 Ninth Street SE, Rochester, Minnesota 55904. 3-12/89

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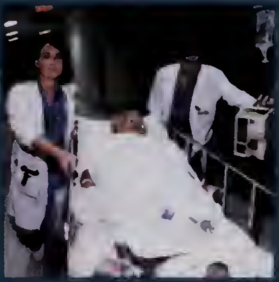

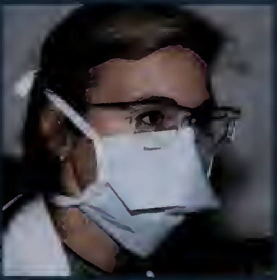

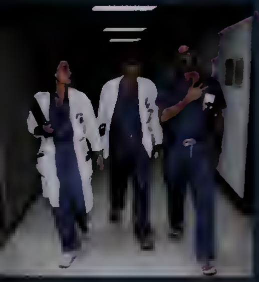

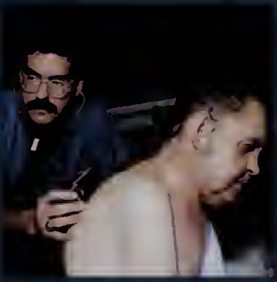

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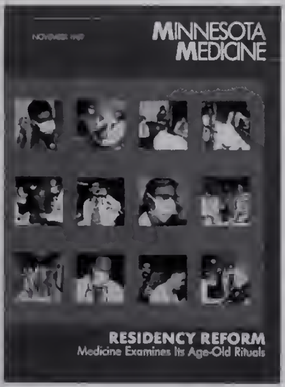
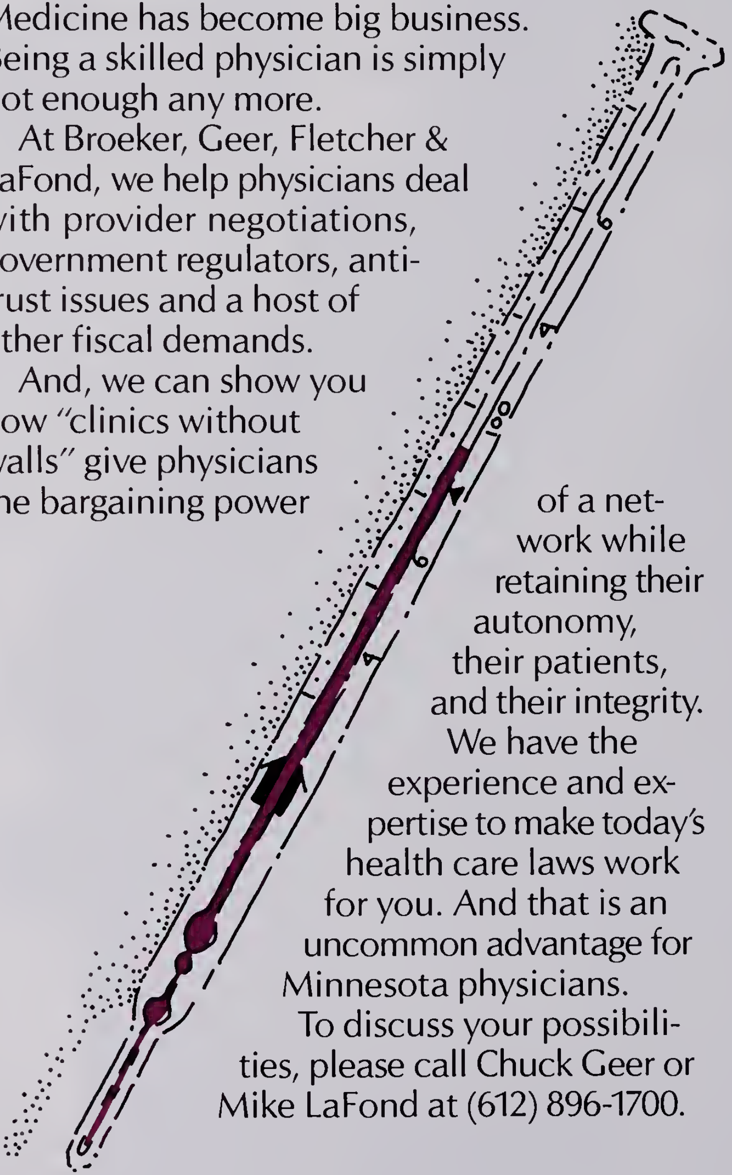


Cover Design

RESIDENCY REFORM For decades physicians have worked long hours, absorbing as much clinical experience as possible during the frenzied and wearisome—but often rewarding—years of residency. This month's feature story (page 642) and our interview with Nicole Lurie, M.D. (page 627), ask whether it is time to restructure our residency system.

Cover design and feature story layout by Gail Swanlund of St. Paul; cover and feature story photography by Rob Levine of Minneapolis. Special thanks to Hennepin County Medical Center staff for allowing us a look at one of their night shifts.

What's happening to doctors today is enough to make you sick.



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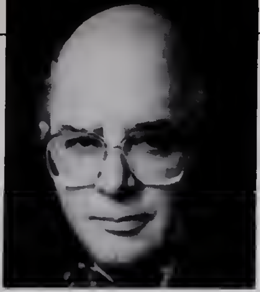

RICHARD L. REECE, M.D.

EDITOR'S NOTEBOOK

Better Read than Dead, or: What We're Trying to Do with Minnesota Medicine

Two years ago, at the request of the Board of Trustees of the Minnesota Medical Association, the editorial staff and I changed *Minnesota Medicine* from a clinical journal to a more broadly based medical magazine.

Our Aim

Our aim has been to make *Minnesota Medicine* more relevant to what's happening to you in the revolutionary world of managed care and in a rapidly changing society undergoing "future shock." This shock has hit medicine in Minnesota with devastating force because we have the dubious honor of being the nation's experimental cauldron for competition as an alternative to regulation.

The Minnesota Medicine Advisory Committee and I also have had a go at making the journal more lively. Why? Well, as a sage once observed: "Better read than dead." In addition, we've tried to expand *Minnesota Medicine*'s influence beyond strictly physician readers. Modern health care has a lot of stakeholders besides doctors, and we've tried to reach these stakeholders as best we can.

Success?

Have we succeeded? In a poll of the MMA House of Delegates a year ago, 60 percent said they approved of our changes, 20 percent said they disapproved, and 20 percent had no opinion. In our mailbag of letters coming from you, the readers, we find the trend running about 2:1 in favor of the changes. This month, we are analyzing the results of a more comprehensive survey of our readers to get a firmer grasp of what you want to read in *Minnesota Medicine*. (One thing our early results show is that we will never be able to cater to everyone's wishes. Comments have ranged from: "The revised, current content of *Minnesota Medicine* is excellent. It fills an important, previously unoccupied niche in my information stream. Thanks for the good work," and "You can't improve it much more than it is now," to: "I preferred the previous, more clinical format," and "Don't really have much time to read it. Doesn't contain much of interest to me.")

I have little idea how the outside world, i.e., those in other sectors of the health care industry or Minnesota society at large, view our efforts to broaden our view of the world. But, I do know this: It's hard for a "trade" organization to transcend the notion that it has only its self-interest at heart.

Call for More Scientific Papers

Despite the changes, we have kept the door ajar for clinical articles. We still want these articles, just fewer and of higher quality. The Minnesota Medical Association remains, after all, a political association with roots in science. And *Minnesota Medicine* wishes to maintain a publishing outlet for physicians who seek to contribute scientific and clinical knowledge. We've just become more selective.

As we've instituted various changes, the flood of submitted scientific papers has understandably trickled down to an occasional submission. To encourage more papers, we've announced regularly that we still accept clinical papers for peer review. But we only accept them twice a year, the first two weeks in January and June. We've adopted this schedule to help us better control the flow of manuscripts and to ensure a more expedient, quality peer review of clinical research articles.

If you have any articles you would like to submit for the January deadline, now is the time to begin cranking up your word processors.

More Essays and Letters

Finally, I would like to seize this moment to goad you into sending in more essays and letters to the editor. I know many of you out there have strongly held opinions about the competitive environment, about government and third-party intervention into your practices, about injustices imposed on patients by federal health policies, about organizational bureaucracies, and about the joys and sorrows of practicing medicine in modern times.

And, no doubt, many of you harbor opinions about my editorials and essays. This is a formal invitation asking you to unload those opinions in a letter to the editor. We will be glad to accept both love letters and hate mail. I would prefer, of course, that you write balanced, judicious, and informed epistles reflecting the breadth of your intellect and the soundness of your reasoning.

If you have deep feelings or catch us in error, drop us a line. ■

New Doctor on the Block

More practicing physicians in Minnesota have received their postgraduate training at the Hennepin County Medical Center than at any other teaching institution in Minnesota. Its faculty members produce scores of original research and clinical papers each year; it is the only Level I trauma center in the state; it runs one of the largest dialysis and renal transplant programs in the Midwest; and its internal medicine residents annually rank near the top of the nation on board scores.

Yet, among academic training centers, the Hennepin County Medical Center projects a relatively modest profile. Why is this? As an outside observer, I've never been quite sure. Perhaps it's because most of its patients are indigent. Or maybe it's the fact that Hennepin has never been much of a private referral center. Or perhaps it's because its faculty and house staff are so busy treating patients, they don't have the time or the energy to toot their academic horns.

Why would a Harvard professor of medicine, with a long and distinguished academic career, leave Boston to head an internal medicine program at a public hospital in Minneapolis? I have a hunch that Roland H. Ingram, Jr., M.D., Hennepin County Medical Center's newly appointed chief of internal medicine, sees in this medical center a rough jewel that needs only minor polishing to bring out its true academic luster.

He also sees a collegial place that receives solid public support. My guess is that he is genuinely excited about participating in a new kind of practice environment, one dominated by large managed care organizations.

But these are idle speculations on my part. I'll allow Dr. Ingram to speak for himself. In person, he is engaging, charming, and humorous. His humor often degenerates into horrible puns, unfortunately more clever than mine. Dr. Ingram, who was the Parker B. Francis Professor of Medicine at Harvard Medical School before joining HCMC's medical staff and concurrently served as senior physician at Brigham and Women's Hospital in Boston since 1980, shares with us his thoughts on medicine in Boston and Minneapolis, the role of the internist, and the future of internal medicine.

Why Minnesota?

REECE: *Dr. Ingram, you came to the Hennepin County Medical Center in July to assume the position of chief of medicine. Before that you had a distinguished academic career in Boston and elsewhere. Let me start by asking you why you came to Minnesota to assume this position.*

INGRAM: After considering several possibilities, I came here to do something different. Why this particular place? I thought there were many unique things here. Some are structural within society, and some are less easily identifiable within the ethos of the medical center itself. It's clear that this is a very well-supported public facility. Many of the draconian measures that have been inflicted upon the profession in recent years do not have such an impact on day-to-day operations at Hennepin as they do in other places; that is, you're still free to practice medicine as you think it should be practiced—with good community support. Second, there's an atmosphere of collegiality and mutual purpose, blending service and academic functions in a very pleasing way. I thought I would enjoy participating in such an environment and, perhaps with time, contributing something to it.

REECE: *Is that spirit of collegiality hard to find elsewhere?*

INGRAM: If it's not hard to find, it's less easily found. If you look at collegiality as a mass, it would be moving centrifugally—away from the center of the activities—in most institutions.

REECE: *Why is that? What is this centrifugal force that is pulling away at the collegiality of medicine? Is it the economic stresses of modern medicine?*

INGRAM: That's part of it. As you have referred to in your editorials, there is a phase through which current institutions go. Administrators and physicians are apparently at cross purposes. They

Ingram to page 668

ROLAND H. INGRAM, JR., M.D.

The Life and Times of Today's House Officers

If you give the matter any thought at all, you will realize two schools of thought exist about the stresses of residency.

- *Members of the first school are, for the most part, quiet, unemotional, and inarticulate about their beliefs. They believe their beliefs are a given and that they don't need to be talked about. Older physicians represent this school, which says that life is hard, you work long hours to become a good doctor, you handle crises even if you're exhausted, you suffer through baptisms under fire because it's simply the way you become a clinician capable of coping with any situation. And besides, everybody has to do it because that's the way we've always done it.*
- *The second school is younger, concerned, articulate, and unpersuaded that working yourself into the ground produces anything but a socially dysfunctional physician. Nicole Lurie, M.D., of Hennepin County Medical Center and the University of Minnesota, belongs to this second school. As an internist of an academic facility, she sees firsthand the casualties of the present system, and she is trying to bring about reforms. These reforms might include rules such as not working an average of more than 80 hours a week, not working more than 24 hours a shift, having one day off a week, limiting the number of patients you can admit and treat, having more backup ancillary personnel performing routine procedures, and installing a transcription system for dictating charts.*

But Dr. Lurie, a thoughtful and systematic person, believes you ought to have the facts before you act. Accordingly, she led a team of investigators from Hennepin County Medical Center, the University of Minnesota, and the Minneapolis Veterans Administration Medical Center, in gathering time and motion data on what residents actually do at night. These investigators' work culminated in a study published in the June 22, 1989, New England Journal of Medicine *article, "How Do House Officers Spend Their Nights? A Time Study of Internal Medicine House Staff on Call."*

Here she and I discuss the stresses of residency, what residents do at night, and how these stresses and sleepless nights affect their lives.

Do We Really Need Residency Reform?

REECE: *The purpose of this interview is to talk about what led you to co-write an article in the June 22, 1989,* New England Journal of Medicine *entitled "How Do House Officers Spend Their Nights?" This article concerned the nocturnal habits of residents at Hennepin County Medical Center, at the Veterans Administration Medical Center, and at the University of Minnesota Hospital, all in Minneapolis. Why did you write that article?*

NICOLE LURIE, M.D.

LURIE: I was the chair of a Hennepin County Medical Center committee set up to restructure some aspects of the internal medicine residency. When we sat down at our first meeting to figure out what to do, we realized that all of us had very different notions not only about what needed to be done but about what the current practice was. We decided to collect some data before going any further.

REECE: *On the basis of this article and other things you have learned, do you think the current push toward residency reform is indicated or overdue?*

LURIE: Both. We've seen a series of national trends for the past few years that in part reflect people's dissatisfaction both with the training that's involved in a medical career, as well as all aspects of medicine itself. We've witnessed a decrease in the attractiveness of medicine as a profession and a decrease in the attractiveness of internal medicine. Certainly not all of that can be attributed to a stressful lifestyle. But when we talk to people about career decisions, a major consideration seems to have to do with the training process. Another big part of it, of course, is the social and economic issues facing house officers when they finish training.

continued

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REECE: *Given the heavy debts of most medical students and house officers, the increasingly uncertain economic future, and the need to moonlight to pay off debts, do you think residents are more stressed than in the past?*

LURIE: Residents are more stressed than they've ever been, but I'm not sure you've cited all the reasons. Those certainly are important contributors, but I think there are other reasons, too. First of all, although the number of hours that residents work is less than it was 20 years ago, the pace of medicine has really changed. Residents are in a much higher stress environment. Patients are much more acutely ill. Decisions have to be made on a minute-to-minute basis much more often, and the consequences of being wrong are much more serious. Patients are discharged from the hospital sooner because of economic changes. You don't get to know patients very well before they're gone. You have to move quickly. Many patients are hospitalized because their care requires major technology. Many have much more difficult social and ethical dilemmas than before. But we don't have time to deal with these dilemmas. Plus there's a lot more paperwork, and there are a lot of other things that physicians are being asked to do that they weren't asked to do before.

How Do House Officers Spend Their Nights?

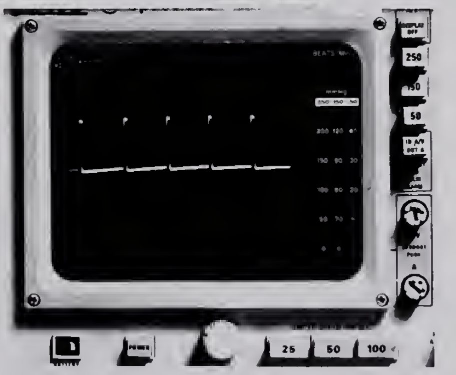
REECE: *Perhaps we ought to examine what you described in your paper. How do house officers spend their nights?*

LURIE: Let me back up first and talk about what we studied and how we focused the study. There are many ways that we could have looked at this. I particularly want to make it clear that we did not explicitly study the residents' educational experience. What we did was follow residents around. We tracked what they were doing minute to minute all night long.

We were particularly interested in three things. First, we wanted to know whether the residents were carrying out activities that could be done by nonphysicians. Second, we wanted to know how much time they were spending with patients. Third, we wanted to know how much sleep they were getting.

We found that house officers spend a fair amount of time doing procedures that could be done by nonphysicians. These procedures consumed as much as 18 percent of their total time. In fact, the times we quote are actually low; if you really add in the time it takes the people to walk from one end of the hospital to the other, gather all the equipment, and do all those kinds of things, the time is even greater. But the point is, residents spend a lot of time doing proce-

Movies shown in flight.



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dures that could be done by nonphysicians.

They also spend a tremendous amount of time with the charts, writing histories, physicals, and orders. This takes upwards of three hours a night at Hennepin and substantial amounts of time at the university and the VA. That time could be cut dramatically by a transcription service, for example, or other kinds of techniques that reduce people's time spent on charts.

"There's a problem with the way we train residents and with the way the residents work, particularly at night."

Although the total number of minutes of sleep residents got was not inconsequential, the amount of uninterrupted sleep was very small. The mean time without interruption was 40 minutes; less than 25 percent of sleep episodes were greater than 90 minutes. Residents rarely got to REM sleep. It was often the case that a resident would lie down, and five minutes later his or her beeper would go off or the phone would ring. Often they were awakened needlessly. For example, one resident was called at 2 a.m. to sign prescriptions for a patient who was being discharged the next morning. If somebody woke me up for that at 2 o'clock in the morning, I would be upset and would come to resent certain aspects of my job—as most of us would.

A piece of good news from our study is that there are structural things within the system that could be changed to improve the residents' lifestyle.

One concern, however, was the limited amount of time residents spent with patients.

REECE: *What do you mean by "limited"?*

LURIE: Well, we expected that a new-patient history and physical exam would take 45 minutes to an hour. We found that they ranged from one to 57 minutes, with mean times ranging from 17 to 31 minutes depending on location. This was far less than the amount of time residents spent writing in the charts and doing other activities. And when they were doing a new-patient history and physical, the residents were interrupted every nine or 10 minutes.

REECE: *Why is so much time spent writing in the chart?*

LURIE: There are a couple of reasons. First of all, residents are taught to be complete, and they are rewarded for being complete—for example, by having a nice looking chart, with a well-done, well-documented history and physical. So that's what they do.

Second, it may be that people don't discriminate very much about what they write down. They tend to write down everything rather than think through what important issues really need to be communicated. The medical-legal climate only adds to this compulsive recording.

One of my own hypotheses is that, by and large, residents feel uncomfortable spending a lot of time with patients, not only in Minneapolis, but across the country. It's not something they're really trained to do well in this day and age. They don't learn that art in medical school. It's much more comfortable to look through or write in a chart than to spend time talking to a patient.

The Resident-Patient Relationship

REECE: *Let's explore your last comment. That seems like a contradiction. After all, don't people become doctors to be with patients? You're telling me young physicians feel uncomfortable with patients. Why is that?*

LURIE: It's a combination of things, and its somewhat contradictory. Lots of people go into medicine to be with patients and for the rewards of patient care and for the love of medicine. Yet patient interaction is where it's hardest for them to learn to achieve those rewards. Besides, they don't receive very much training to help them deal with many kinds of patient care issues. When residents feel more and more uncomfortable dealing with patients and don't have help along the way, they tend to avoid it.

They can easily turn to technology. There's plenty of technology, and its a whole lot more certain and rewarding to many. It's appealing intellectually, too. It's very tempting to look at the numbers coming out of the Swan-Ganz catheter or to look at a CT scan or an MRI rather than to assess the patient directly. The financial rewards are much greater for doing procedures than they are for direct patient care. Meanwhile, patients are asking for more satisfying personal relationships with their doctors. Patients want to communicate with their doctors. They want their doctors to explain to them what's going on. Many of the things that people go to a doctor for are psychosocially related, and yet most physicians avoid psychological and social issues. That doesn't mean that in the middle of the night residents need to spend more time dealing with people's psychosocial problems. The middle of the night is not the time to do that. But, unless we change the basic reward structure of medicine, the problem isnt going to go away.

Forces Behind Residency Reform

REECE: *I have the sense reforms are underway to swing the pendulum back toward a more humanistic medicine. Yet the public, not the profession, is driving the demand for a less grueling work schedule for residents.*

LURIE: Once again, we've got two contradictory things going on. First, we have the Hsiao report and the implementation of RBRVS. Resource-based payment is going to shift the reward system, increasing the financial reward for the more cognitive and human skills in primary care. And yet, at the same time, Medicare will be paying less for graduate medical education, and it doesn't want to pay for ambulatory education. Some of the more cognitive skills may begin to be rewarded, but there isn't yet a willingness to shift resources into training in the areas of cognitive and humanistic skill development.

REECE: *Do you limit residents' work hours at the Hennepin County Medical Center?*

LURIE: Nationally, the Residency Review Committee has recommended that residents should not work more than 80 hours a week on average and should be off for at least one 24-hour period during that time.

Seeking a Balanced Lifestyle

REECE: *Do you find residents are asking for a more open and balanced lifestyle during their training?*

LURIE: Sure. Residents are different now than they were 20 or 30 years ago. Generally speaking, they are older; they're more likely to be married; they're more likely to have families and more commitments outside the hospital; and their needs are very different. Yes, they are striving for a more balanced lifestyle. They see their peers and mentors become impaired physicians, burn out, have unsuccessful marriages, and they say, "I don't want this to happen to me." They either decide not to choose medicine or they start to think seriously about how to balance medicine with the rest of their lives.

REECE: *Do you think the stresses on house officers apply equally to men and women? Don't they each have their own set of stresses?*

LURIE: Yes, they each have their own set of stresses. And there are particular stresses that apply to residents who have young children. These stresses are amplified when both parents are residents and have young children. For some time we've recognized that women with young children have special needs, although the system in general has not been terribly flexible about meeting them. We have also denied the fact that men with young children at home have special stresses, too. Our culture has taught men and women to approach these stresses differently. What we see are differential, culturally conditioned coping responses. We recognize them, perhaps, as strengths or weaknesses of one gender versus the other. We'd be a lot better off if we backed up a few steps and examined what the basic issues and premises are—regardless of gender—and decided what was desirable and what was not.

REECE: *Do you find satisfaction with medicine as a career is decreasing? Are residents re-examining their decision to go into medicine?*

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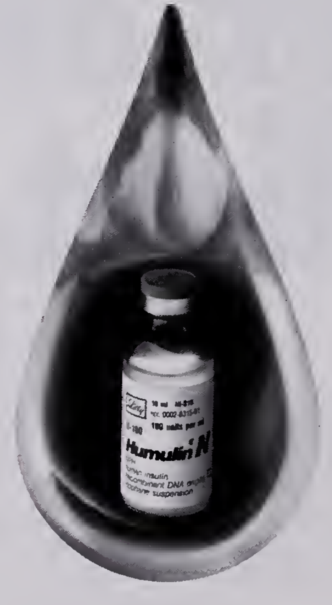
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LURIE: We didn't study resident satisfaction, and I don't know if there's a decrease in satisfaction. What I can say is that this is a time when most young adults re-examine their lives. It's a normal developmental process, and it's something we need to recognize and help people through.

The Passage of a Rite

REECE: *What do you hope will result from the article you wrote and from your work in training these fine young people?*

LURIE: First of all, I hope people will be open enough to recognize there is a problem and that there has been a problem for some time. There's a problem with the way we train residents and with the way the residents work, particularly at night. Their lifestyles have to change if we expect them to be competent, caring, humanistic physicians. I'd also like to see us seriously rethink the way we train residents, both in content and process. That's not going to come immediately from this study, but we need to think through on a larger scale how we educate physicians. Balanced lives are a part of that picture.

> **"I don't think it's the individuals that are defective; I think it's the whole experience that we're putting them through."**

REECE: *Whatever happens, it seems that the traditional macho attitude that says doctors have to pass through hellish rites of passage is being challenged. The period of denying that these rites of passage exist, or that they can distort the personality of physicians, seems to be drawing to a close.*

LURIE: I hope so, but I am still distressed when I talk to senior physicians even in this community. Their attitude is still: "Well, I went through it, and other people should go through it." The problem with modern residents, they say, is that we're taking defective individuals into our programs. I don't think it's the individuals that are defective; I think it's the whole experience that we're putting them through. We must recognize what is normal growth and development for individuals at this time in their lives. Until we recognize those sorts of issues, and the system recognizes that the trainee is affected by the training process, which itself is not optimal, we aren't going to change. ■

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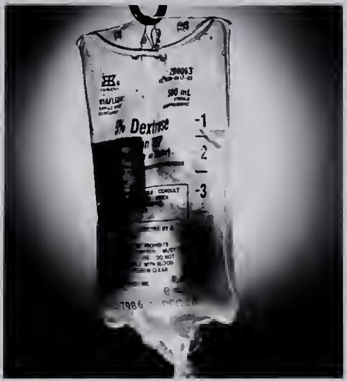

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LETTERS TO THE EDITOR

Thanks, Doc

Editor's note: We received this letter from a patient wishing to express his gratitude to John D. Banovetz, M.D., of Minneapolis. We're sharing it here with you because sometimes we all need to be reminded of what doctoring is all about.

I would like to praise Dr. John D. Banovetz for his professionalism and for the personal attention he gave me during my operation at St. Mary's Hospital in Minneapolis on August 30, 1989. He took the time before the operation to explain in detail the procedure and the risks. He also discussed the anesthesia types and helped me decide what was best for me and why. He visited with me after surgery and counseled me about my medication and told me what to expect following the operation.

Besides the above he called me on August 31, 1989, and talked to me about how things were going—almost an unheard of act. He's truly a credit to the profession.

Physicians would do well to remember that *how* you do or say something can be more important than *what* you do or say.

Raymond V. McGraw
Arden Hills, Minnesota

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Physicians for Research in Cost-Efficiency (PRICE) is a new organization designed to meet the challenge of the turbulent times ahead for those of us in health care. Physician participation in the rapidly changing medical arena will be essential to maintaining quality patient care in an atmosphere of cost containment. Many of us already are actively involved in efforts to facilitate the development of cost-effective medical practice. We now must begin to use this information effectively.

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Interested physicians can gain membership by submitting a letter of interest and a curriculum vitae if they wish so that physicians interested in similar work can be connected with one another. There are no fees and no financial sponsors. PRICE is simply for physicians concerned about the future. Please address correspondence to David J. Shulkin, M.D., president, PRICE, 926 Bellefonte Street, Pittsburgh, PA 15232; or call (412) 682-8015.

Thank you.

David J. Shulkin, M.D.
President, PRICE
Pittsburgh, Pennsylvania

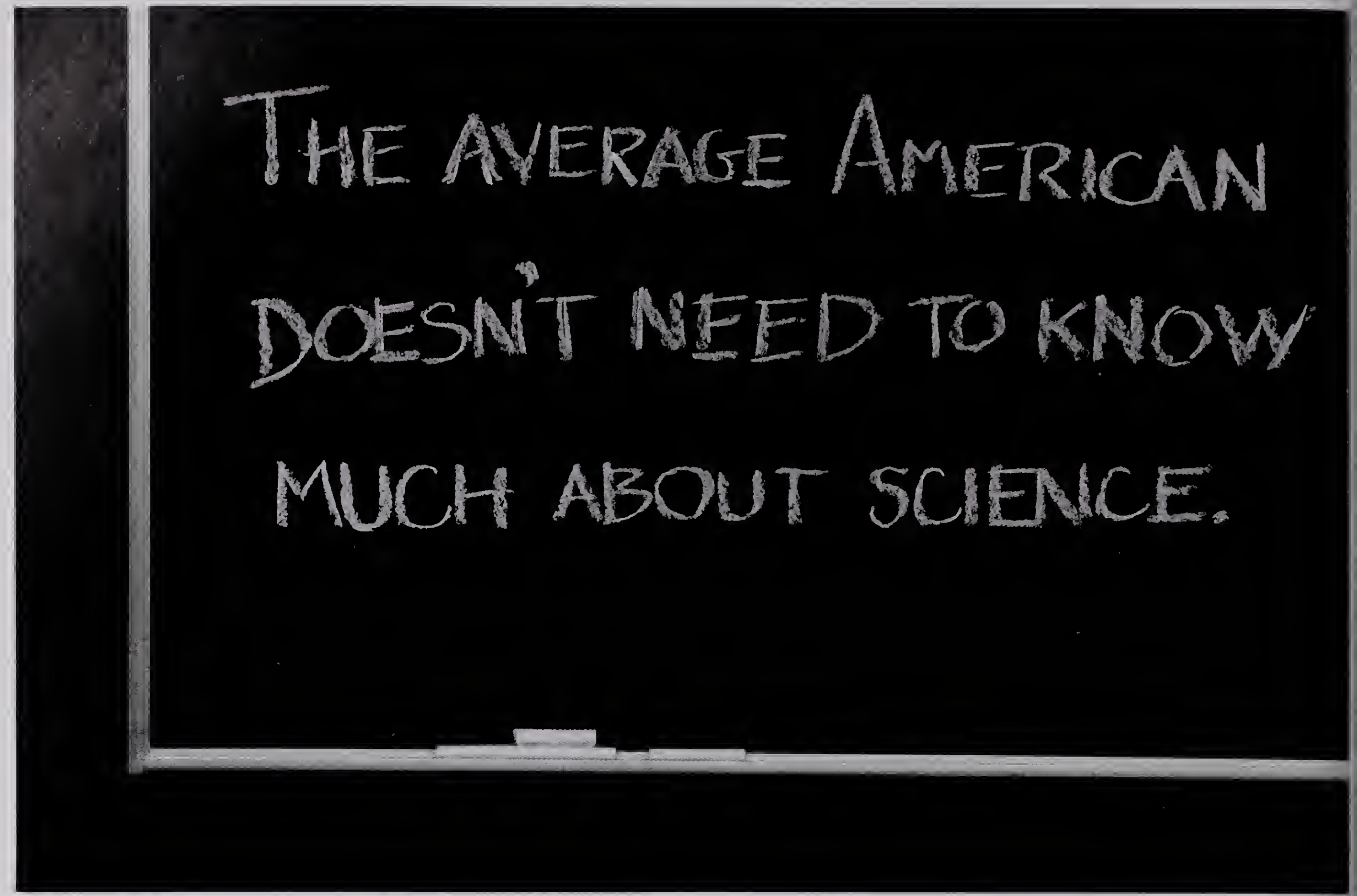
Setting the Record Straight

On May 18, 1989, a letter from PHYSICIANS WHO CARE (PWC) was mailed to Rep. Philip M. Crane, R-Ill. On the last page of that letter a reference was made to a class action lawsuit against United HealthCare. That reference was incorrect. It should have stated a class action lawsuit was filed against U.S. Healthcare. We apologize to United HealthCare Corporation for this error, as we are well aware of its efforts to improve the quality of care for patients in managed care plans. We hope you can help us set the record straight.

Kathryn A. Sutton
Administrative Manager
Physicians Who Care
San Antonio, Texas

Correction

In the October 1989 *Minnesota Medicine*, the word "new" was inadvertently omitted from the beginning of the title "Approaches to Living Donor Renal Transplantation" (Vol. 72, Number 10, p. 589). We apologize to the authors and regret the omission.



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The AMA is working to help remedy this situation. Our National Initiative for Science and Technology Education calls for the AMA to host a conference on science education early next spring. We are also preparing a white paper to present a balanced view on the subject. And under our Natural Science Ambassador Program, we are sending physicians into schools across the country to stimulate interest in science.

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Current Issues in Bioethics

Demands, Limits, and Autonomy

Barbara A. Elliott, Ph.D.

Over the past several years, changes in technology and economy have affected medicine and medical practice. The changes and their implications are common topics in medical journals and at professional meetings and conferences. While these discussions raise real ethical questions, the issues are usually discussed at levels distant from most practices. Rarely are discussions focused on patients seen daily in our clinics, on the disagreements that we have with our colleagues or patients regarding what should be done next, or on the questions that haunt us after a patient is gone and we are still wondering about the right thing to do.

This article reviews the four most pressing ethical issues facing health care today. It examines these issues at both national policy and local (or clinical) levels, recognizing that these same issues arise in both settings. The challenge to each of us is to consider the issues, recognize how they affect our practices, and come to some understanding of our own sense of right and wrong in each case.

Limited Resources and Unlimited Demands

One of the major ethical issues facing all of us in medicine is that of balancing resources and demands. Although some authors proclaim that our resources are not yet limited,[1] it is obvious from the discussions at conferences and in journals that we are struggling to efficiently and effectively use the resources we have. The focus of this ethical question has to do with patient care: Can patients expect or demand health care beyond the limits of their health insurance, medical judgment, or social resources?

This issue is being addressed in a number of ways nationally. Oregon faced this question fiscally in its apportionment of public monies for health care in the 1988-89 biennium. That state's legislature acknowledged the limited amount of money available for health care and decided to dedicate the available monies to preventive care and prenatal health instead of organ transplantation. The social uproar this decision created reflects the American belief that "there is always a way." Through private donations and federal matching monies, transplantation has been made available to Oregonans. It will be interesting to see how Oregon's budgeting proceeds in the next legislative session.

Other examples of this issue at the national level are obvious to anyone who watches the book titles on the best-sellers list. Richard Lamm, former governor of Colorado, has made infamous statements about the "duty of the elderly to die." Hastings Center director Daniel Callahan's book, *Setting Limits*, addresses a similar issue.[2] He proposes that citizens over age 85 should receive palliative care but not diagnostic and curative care. In both of these examples there is an attempt to define criteria for limiting demand so that our resources can be extended. The courts have not yet addressed the legal dimension of this question. Clearly, patients have the legal option to refuse medical intervention; the question remains whether patients have the right to demand care.

This same issue also affects the clinical practice of medicine. Again, the question is whether patients can expect, request, or demand care beyond the limits of medical judgment, insurance, and/or social resources.[3] One common example of this issue is the patient who requests antibiotics for a cold or a mild virus. From the clinical and laboratory evaluation it could be very clear that there is no bacterial infection. However, the patient expects an antibiotic. What do you do?

"Where do we draw the line in a day-to-day practice between social limits and individual autonomy?"

Another common example involves a patient who is new to your community and who wants to establish continuing care. You learn from the patient's history that she has been taking Valium for many years to help her handle stress and maintain a quality of life that she thinks is appropriate. She asks that you continue her prescriptions. This request raises questions of medical utility, harm to the patient, and quality of life, as well as addiction issues. What do you do?

A third example of this issue addresses technology more clearly. A patient who has been part of your practice for many years sees you again about his headaches. You have cared for him and his family for more than 10 years, and you are comfortable with the diagnosis of tension headaches. He has always experienced the typical pattern and treatment responses. He makes an appointment to reassess his headaches and requests a CT to further evaluate the cause. What do you do and why?

Each of us makes up our own mind with regard to these questions. We use ethical reasoning to explain our positions. The issue of balancing limited resources with unlimited demands poses an ethical question regarding the balance between patient autonomy and professional autonomy: Should we, in the service of patient autonomy, deny our own professional integrity? My answer to that question is "No, we should not." Following the logic of Brett and McCollough, in each case, the ethical principles of beneficence and non-maleficence dictate that there "must be at least a modicum of potential benefit from the medical prospect" in order to justify an intervention.[3] In the three cases I have described there is no evident potential benefit.

Social Limits and Individual Autonomy

A second important ethical issue facing medicine and society today has to do with the balance between society's needs and the individual's autonomy. When can society say no to an individual? This question is clearly related to the issue discussed above, but it focuses on a different dimension of it. Patient autonomy is the prevailing criterion in medical decision making. Libertarian expressions of this principle have relegated physicians to the role of service vendors rather than professional care providers.

Nationally, this issue has become visible because of the AIDS epidemic. We have been educated according to the public health model in medicine. There are times when public health issues take precedence over the individual's autonomous needs. For example, questions of confidentiality, reporting, and public health mandate the reporting of AIDS cases, and sexual contacts of those carrying the disease are informed of their risk. In these cases, social needs overwhelm the individual's right to confidentiality. The question now is how do we establish these limits? Where do we draw the line in a day-to-day practice between social limits and individual autonomy?

"The professional ethic of service and advocacy is being eroded by the business of medicine."

At the personal practice level, we regularly address questions of disclosure and confidentiality. One example is that of an occupational health physical. You are asked by a long-standing patient to complete a physical exam to document that she can drive the school bus. You know from her medical history that she is alcoholic and prone to binge drinking. You also know that without this job there will be no income for her family. Are the needs of the school children and society greater than the need to protect the confidentiality of this patient's health problem? What do you do?

Another common example of this issue occurs in families with aging parents. In your practice you have taken care of a family that includes an elderly woman, her adult children, and her grandchildren. The older woman is increasingly confused and difficult for her daughter and family to have living in their home. The adult children would like her to live in a more protective place (board and care or nursing home setting), but the older woman adamantly refuses to move. When do the needs and desires of the family supersede those of the individual? When is it the right time to encourage the older woman to move from her home? What do you do?

Technological Imperative

Do we always make new frontiers of medicine and science available to our patients? This is a third major ethical challenge facing us today. Traditionally, quality in medicine has always been defined by the maxim "More is better." More recently, we have been looking for new indications to evaluate the *quality* of medical care. Instead of using the structure and function of health care to indicate quality, we now are looking at outcomes of health care as indicators.[4] How can we measure the quality of medical care? When is it unreasonable to offer a new technology or make another attempt to change the course of an illness? The answers to these questions will become basic to defining the appropriate use of high-technology modalities.

At the national level, special committees of the National Institutes of Health and nationally seated commissions address this question. In addition, new funding guidelines are being designed that evaluate and establish the bounds of quality and futility in health care. This becomes an everyday issue in our hospitals when we encounter the question: What is a timely death? The possible applications of this question range from our CPR/DNR policies to the issues of euthanasia revealed in the controversial "It's Over, Debbie" article in *JAMA* last year.[5]

When is it futile to initiate or continue CPR? A review of the recent literature indicates that there are three ways of measuring the outcome of CPR.[6] The first has to do with the survival of the "code" experience. Another way of evaluating the success of a resuscitation is to determine how often patients survive for more than 24 hours following the code. A third means is to determine how many of the patients survive to be discharged from the hospital. Further review of this literature indicates that patients with particular characteristics tend not to survive CPR. From this article and the published series that addresses CPR issues,[7,8] we have to ask whether CPR policies in each hospital are appropriate. And if our policies are inappropriate, how do we change them to meet reality?

Among patients, the best candidates for CPR are those who have had acute insults (myocardial infarction, drug overdose, complications of diagnostic/treatment procedures). When is CPR futile? What do you recommend to your patients? Technology is not always the best answer.

Physician Autonomy

Physicians have a long tradition of individual action and decision making. This has been altered by the economics of health care, third-party payers, courts, and legislatures. All of these factors are defining limits and choices while mandating certain actions by physicians. This change in physician autonomy is another major ethical dilemma facing health care today.

The dilemma forces us to ask: Who is in control of the doctor-patient relationship? In the past it has been both the doctor and the patient. This is no longer true. The issue for physicians is truly one that pits professional ethics against economics. The professional ethic of service and advocacy is being eroded by the business of medicine. Today physicians have clients and enrollees rather than patients. In their daily practices, physicians are pressured to advocate for hospital admission and reimbursement of cost rather than for the patient's best interest. In the past, the physician made decisions with the patient regarding the best or optimal care; now the physician must make that distinction while maintaining the lowest cost for the system. Ethicist Edmund D. Pellegrino, M.D., and others describe these changes with the terms "gatekeeper role" and "managed care."[9]

Achieving the best care for the patient now must be balanced against the best price for society, and physicians are forced to perform the balancing act. This is an untenable ethical position for the physician. Doctors are being asked to serve two masters[9] and indeed have no control over the situation. Physicians—the service providers—cannot be both the gatekeeper and the patient's advocate.

The courts are hearing cases regarding this issue. Although a number of cases are under appeal, the decisions so far have clearly held that the physician's judgment should not be limited by economic considerations. In Minnesota there are several cases waiting to be heard. These decisions will help clarify the role of the physician in this crossfire. Medical economics and health care financing policy will need to be defined following the court decisions. Physicians, as a group and as individuals, need to clarify their own ethical positions.

Conclusion

The four most imposing ethical issues have been discussed here, using national and everyday practice examples. Physician autonomy affects the daily practice of medicine. The definitions of quality in health care and the futility of medical interventions impact regularly on medical decision making and will continue to define social justice in the United States. These definitions will also help us determine how to set limits in the face of unlimited demand. What criteria we will use in distributing our limited health care resources is the most basic issue in biomedical ethics today.

Barbara Elliott is director of Behavioral Science and Research at the Duluth Family Practice Residency in Duluth, Minnesota. She has studied medical ethics issues as a part of her Kellogg National Fellowship.

References

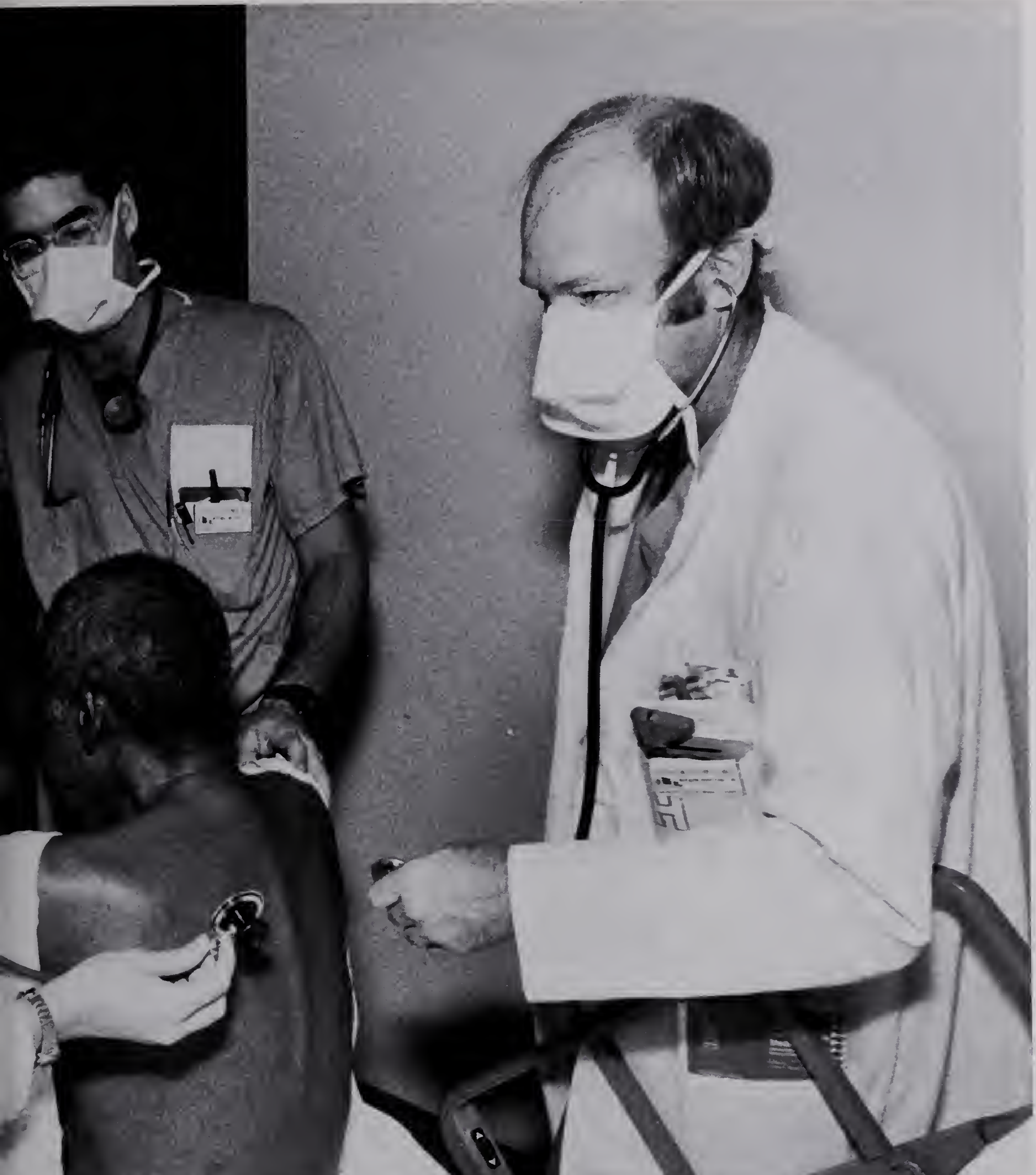
1. Caplan A: Annual bioethics address. Temple Israel, Duluth, Minnesota, 1988.
2. Callahan D: Setting limits: medical goals in an aging society. New York: Simon and Shuster, Inc., 1987.
3. Allan B, Laurence M: Case examples: When patients request specific interventions. N Engl J Med 315(21):1347, 1986.
4. Donabedian A: The quality of care: how can it be assessed? JAMA 260(12):1743, 1988.
5. It's over Debbie. JAMA 259:272, 1988.
6. Taffet G, Teasdale T, Luchi R: In-hospital cardiopulmonary resuscitation. JAMA 260(14):2069, 1988.
7. Murphy D: Do not resuscitate orders. JAMA 260(14):2098, 1988.
8. Blackhall L: Must we always use CPR? N Engl J Med 317(20):1281, 1987.
9. Pellegrino E: Rationing health care: the ethics of medical gatekeeping. J of Contemp Health Law and Policy 2:23, 1986.

In the future, doctors-in-training can expect to be challenged without being overwhelmed, gradually building their confidence, skills, and responsibility so that they will be effectively prepared for the rigors of practice.

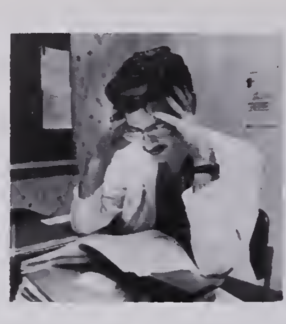
By Delores Lutz

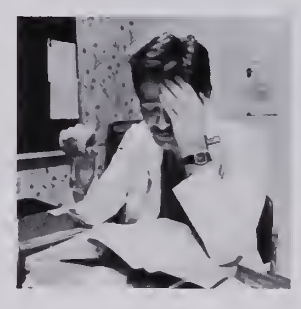
Photographs by Rob Levine

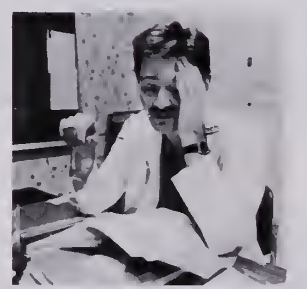
RESIDENCY REFORM



Medicine Examines Its Age-old Rituals







The night of January 16 was rough. The medicine department at Hennepin County Medical Center had 29 admissions, and five of the patients—including heart attack cases—arrived dying.

"It was the worst night; there were so many patients who were so sick that we couldn't get histories," recalled Pamela Harris, M.D., who was a second-year resident on call at the time.

The hours were hectic, challenging, stressful. And, for Harris, rewarding. It was one of those nights that long have been part of the tradition of graduate medical education—a rite of passage from medical student to full-fledged physician.

But it also was the kind of night that has provoked the medical profession to adopt new approaches to the training of fledgling doctors.

Bleary-eyed interns and residents who often work 36-hour shifts and 100-hour weeks no longer are considered necessary or desirable in the nation's teaching hospitals. The practice of medicine—and society's expectations—have changed too much in recent years, residency program directors say.

Now educators—in Minnesota and elsewhere across the country—are improving residents' working conditions by beefing up supervision and ancillary services, altering on-call schedules, and requiring residents regularly to take a day off.

Educators have been debating problems such as fatigue and residents' duties for decades, but changing patient populations, diagnosis-related groups, and the medical profession's recruitment difficulties forced re-examination of the residency.

And while academicians were exploring those issues, a young woman named Libby Zion died in a New York City hospital in 1984. A grand jury concluded that the residents caring for her were tired, overworked, and inadequately supervised.

Pressure from without

Then the media, the politicians, and the public jumped into the discussion.

The public outcry led to the creation of a blue-ribbon commission of physicians that held public hearings exposing 100-hour work weeks and doctors who seemed to be dozing in the operating room. The New York state health department followed the commission's advice and imposed regulations that took effect July 1, 1989. New York's residents now are restricted to 24-hour shifts and 80-hour work weeks; in the emergency room, the limit is 12 hours on call.

"But doctors, unlike factory workers, don't punch time clocks and work in shifts. Legislating hours for physicians and surgeons introduces a shift concept that some educators find disturbing."

This kind of state involvement alarms the medical profession. Echoing a common sentiment, American Medical Association Trustee William Jacott, M.D., said, "I feel strongly that we as a profession should be looking at it rather than having interference from government, legislatures, and health departments."

But some legislators, thinking the profession is moving too slowly, are getting involved. In Minnesota, Sen. John Marty, DFL-Roseville, is among those who believe that legislative interest will encourage the medical profession to speed the process of reform.

"I definitely think they need some pressure on them," he said. "It would be great if [medical professionals] would take care of it themselves," Marty said. "But there are cases where they are abusive of residents and do not protect the public safety enough, in my mind."

Working 100 hours per week is excessive, he said, noting that federal regulations restrict the number of hours that airline pilots are allowed to fly. Federal Aviation Regulations limit airline pilots to eight hours of flight time during a 24-hour period if the plane has only one pilot, and 10 hours if it has two. They also having mandatory minimum rest time of nine hours preceding and following a flight.

The 36-hour work days and 120-hour work weeks also worry state Rep. Karen Clark, DFL-Minneapolis, who is considering introducing a bill to limit the hours residents can be on duty. Clark said she still was studying the options and was unwilling to predict the shape such a bill might take.

But she said that as a nurse practitioner, she has seen the effects of resident fatigue, and she views this as both a quality-of-care and workers' rights issue. In some teaching hospitals, "residents are working ridiculous hours, and they cannot provide quality care when they're dead on their feet," Clark said. "It's a right of passage that is very harmful to patients. We need to look at setting some limits."

"Bleary-eyed interns and residents who often work 36-hour shifts and 100-hour weeks no longer are considered necessary or desirable in the nation's teaching hospitals."

While most physicians close to the issue believe that guidelines limiting residents' work hours are needed, they think that legislation is a bad idea because the problems are so complex and vary among specialties.

"To assume that you can mandate work hours for every specialty and institution is erroneous," said Robert Dickler, chairman of the 28-member Accreditation Council on Graduate Medical Education (ACGME), whose parent bodies are the American Medical Association, the American Hospital Association, the Association of American Medical Colleges, the American Board of Medical Specialties, and the Council of Medical Specialty Societies.

"It's important for the profession to police itself because each specialty has its own peculiar way of doing practice; cardiovascular surgery is vastly different from derma-

tology," said Shelley Chou, M.D., former chairman of the neurosurgery department at the University of Minnesota Medical School and a member of the neurosurgery Residency Review Committee (RRC), which sets the nationwide standards for neurosurgery programs. "As a profession, we would be afraid if the legislature came up with some kind of formula, because there would have to be a compromise somewhere."

Stringent regulations that allow no flexibility might even force some teaching hospitals to close their residency programs, according to Dickler, who is general director of The University of Minnesota Hospital and Clinic. Drastically cutting hours, for example, would require that teaching hospitals hire more residents. That could be especially problematic for specialties such as internal medicine, which already is experiencing a shortage and has positions that go unfilled in the annual residency match. And it would have financial repercussions for the hospitals, as well.

In fact, the cost issue has made it to the courts in New York, where the Hospital Association of New York state and Blue Cross—with support from the state medical society—have sued to block the regulations, citing the cost of lost resident and intern hours. The hospital industry estimated that New York hospitals, which employ 15 percent of all residents in the United States, would need 4,500 to 5,000 additional workers to offset the lost hours.

Reform from within

But even without direct legislative pressure, the medical profession is changing the way it trains its members. To meet the particular needs of the various specialties, ACGME asked the Residency Review Committees for the 24 specialty boards to examine working condition issues a couple of years ago and revise their standards.

First to implement changes are the primary care specialties, particularly internal medicine (with 22 percent of all residents), which instituted new nationwide residency requirements October 1, 1989. The new internal medicine requirements, similar to New York's new rules, allow residents to be on call only every third or fourth night and work only 80 hours per week averaged over four weeks. In emergency rooms, they are restricted to 12-hour shifts.

Teaching hospitals also now are organizing resident assistance programs, and faculty are watching house officers for symptoms of a "stress syndrome" that can lead to depression, marital problems, drug abuse, or suicide.

"We're more enlightened now," said Roger Nelson, M.D., associate director of internal medicine at the

Mayo Medical School in Rochester, emphasizing that reform will not benefit just the residents. "Patients come out ahead, too" he said.

Patients do have certain rights in this matter, according to the newest draft of the accreditation guidelines for neurosurgery, which states that "patients have a right to expect a healthy, alert, responsible, and responsive physician dedicated to delivering effective and appropriate care."

Setting limits

Although the complex problems of graduate medical education can't be solved with a simple solution such as sending doctors home when the clock strikes 12, limiting hours is a good place to start, according to an editorial last February in the *Journal of the American Medical Association*. But doctors, unlike factory workers, don't punch time clocks or work in shifts, and legislating hours for physicians and surgeons introduces a shift concept that some educators find disturbing.

Henry Buchwald, M.D., director of the surgery residency program at the University of Minnesota, doesn't want his residents to start thinking that they should leave at an appointed hour when patients still need their care.

"I think it proper in the training program that the individual is brought up in a tradition where you finish what you start, and you don't walk out in the middle. It's not a job where the bell sounds and you're finished for the day," said Buchwald, who also is a professor of surgery and biomedical engineering at the university.

Residents like Pamela Harris share fears that trimming hours too much will both destroy continuity of care and deprive residents of educational experience. And education is the purpose of the three- to five-year residencies, the accreditation standards emphasize.

In Hennepin's program, the second year is designed to be the toughest.

"When you're there every fourth night and have intense training, you really learn a lot," Harris said. "If there are limits, you'll not get educated. [If hours are cut back significantly] I almost think they will need to lengthen the course. It almost has to be this intense."

Educators now are seeking the proper balance between two kinds of stress—that which fosters professional growth and that which undermines the learning process. In the future, doctors-in-training can expect to be challenged without being overwhelmed, gradually building their confidence, skills, and responsibility so that they will be effectively prepared for the rigors of practice.

It's a new approach to an old education problem, said Robert Cofield, M.D., who serves on the orthopedic surgery Residency Review Committee.

"In the past, the prevailing attitude was 'It never gets any easier, so if you can't handle it now, buddy, you'll never handle it next year or on your own out in practice,' " said Cofield, who also is associate director of surgery and surgical specialties at the Mayo Medical School.

"That argument has an element of truth," he added. "But it's not the only argument on the table."

Practice is indeed more stressful than residency, according to Charn S. Nandra, M.D., a second-year resident in internal medicine at HCMC. He is in a position to judge.

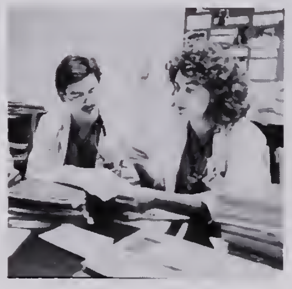
A graduate of the University of Wales College of Medicine, Nandra was a family practice physician in Crosby, North Dakota, for seven years before he moved to Minneapolis. Back in North Dakota he was on call every other night; now he is on call one night in four.

"I don't have much time off, but the workload is less," Nandra said. "I have two (interns) who do a lot of the work and medical students who help out. It's easier here than seeing 20 to 25 patients a day."

Stress: Then and now

Despite the changes in working conditions, some controversy surrounds the notion that modern graduate medical education is more stressful than necessary. Some program directors view the stress discussion as a "non-issue" largely drummed up by the mass media. Buchwald said the debate seems to overlook the fact that stress is inherent in the terrible diseases physicians and surgeons confront.

"[Some people] are making the assumption that human beings can't cope with stress, but stress is a part of life," Buchwald said. "Who is free of stress and leads a normal life? We take care of patients, do our job, and do it in a professional manner."



Still, attitudes toward the profession have changed, according to Brian Rank, M.D., a hematologist/oncologist and director of the internal medicine residency program at HCMC. He remembers hearing his own professors reminisce about their residencies. "They made $25 a month, lived on campus, and had no life outside of medicine. That's all they did," he said. "They were indentured servants." Now residency has become less like the "priesthood or an apprenticeship" and more like a job, said Rank, adding that health maintenance organizations are an example of that attitude.

Residents traditionally grumble about their hard lot, Jacott pointed out, and it's difficult to sort out what is real from what is not. Being on call and on duty is more intense than it was 25 years ago, says Jacott, a family physician who is assistant vice president for health sciences at the University of Minnesota.

Back then, patients would say, "I'm going to check in for a checkup," with the casual air of someone checking into a hotel. Now patients are sicker, and they don't stay as long, Jacott said. "In those days, everyone was admitted to the hospital. The house staff had a mixed bag of patients. These days, the whole hospital is practically an intensive care unit," he said.

Medicine itself has grown more complicated with the development of new diagnostic tools and new therapies, making it trickier to get patients on the right track, Rank noted.

"Educators have been debating problems such as fatigue and residents' duties for decades."

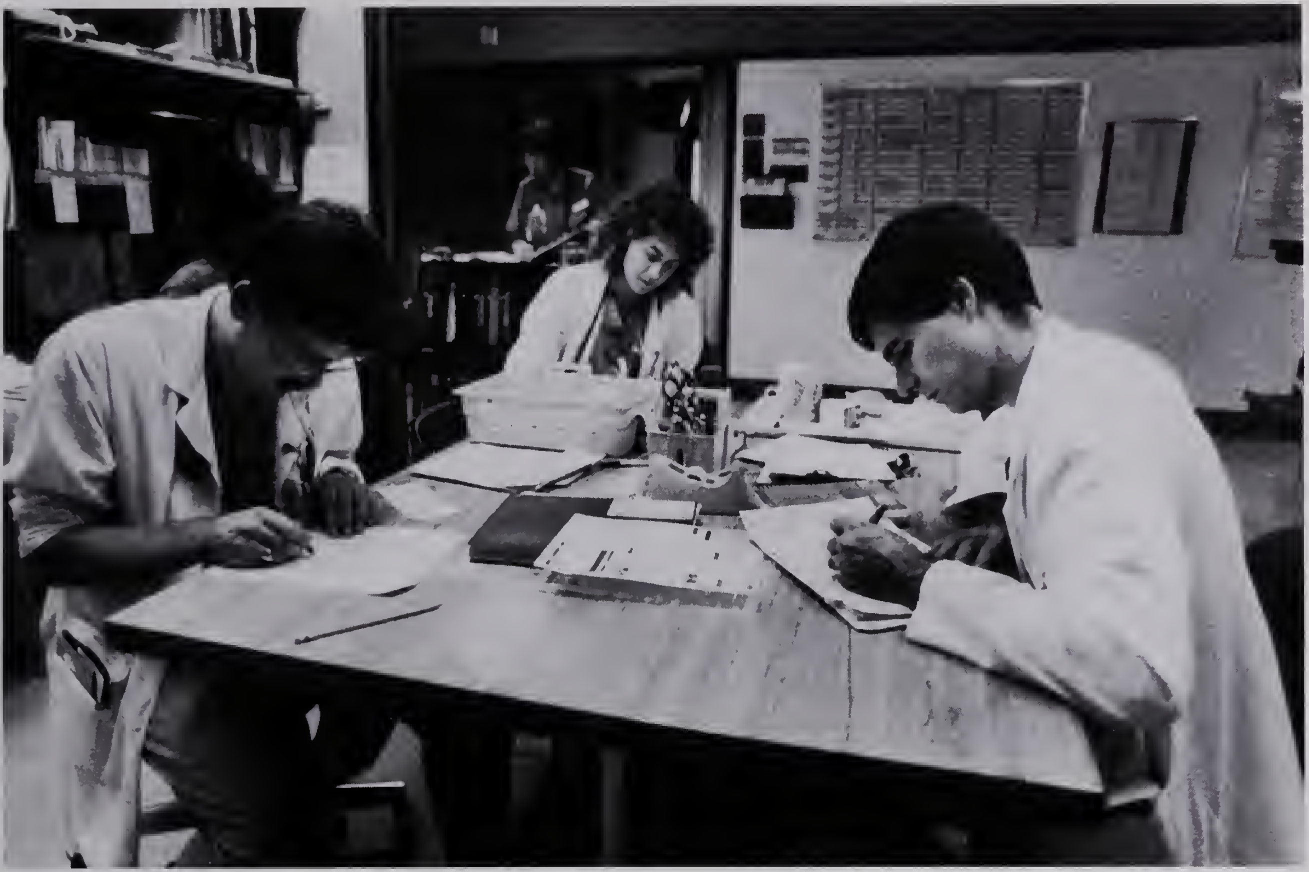
"The pharmacopoeia is 100 times the size it was in the 1950s; we had 10 antibiotics then and hundreds now. And diagnostic tests are 100 times what was available in the '50s," he said. "Physiology stays the same; our ability to deal with it maybe improves or maybe just gets more complex."

Specialty choice is another factor that may influence doctors' perceptions of stress. Some doctors choose certain specialties because they know they can cope with—even thrive on—the intensity, the sleepless nights, the high-pressure environment, suggests Buchwald.

"People who choose surgery as a career are answering some sort of personality pattern that is comfortable in that environment," Buchwald said. "They are at relative peace if they have a relative ability to choose what they're happy in, what they're comfortable in, what gives them a sense of fulfillment, joy, contribution."

Even the community in which the hospital is located influences how demanding the residency can be, according to Robert Mulhausen, M.D., an internist who is past chairman of the board of the Minnesota Association of Public Teaching Hospitals. Minnesota simply doesn't have the AIDS, crack, violence, and poverty problems of New York, where there are no excess hospital beds and patients are very sick.

"That probably tends to aggravate the training problem [in New York], because residents are very



busy, very stressed, and have particular kinds of patients," Mulhausen said.

Even within the same geographic area, hospitals have different patient populations and a different set of problems. At the VA, for example, the overwhelming majority of patients are male, and many of them are elderly. Tertiary care centers such as The University of Minnesota Hospital and Clinic have patients of all ages who have severe diseases. Mayo's teaching hospitals have a wide variety of patients, but they have fewer trauma cases than hospitals in the metropolitan area.

Private hospitals also have some options in their residency programs that public hospitals, because of their unpredictable workloads, don't have.

"The county hospital takes everybody who can come in the door," Rank said. "You can sleep eight hours one night and call in extra help the next night. A private hospital can say that the teaching service is closed at a particular time, but I'm not allowed that luxury."

Playing by new rules

Although the newly instituted internal medicine rules may require some additional juggling of residents' schedules, Rank called the RRC's new requirements "reasonable and rational." Moreover, each hospital has some leeway in developing its own policies, he said. HCMC still is working out the details, and he does not expect the full plan to be worked out until January.

The Residency Review Committees for other specialties are drafting new requirements during the usual course of a three- to five-year cycle of revision.

"It's part of the normal process of evolution in educational programs," Jacott said.

The process proceeds deliberately. In neurosurgery, for example, a draft of the new standards took 16 months to develop, according to Chou, who said some educators still are concerned that the neurosurgery RRC has not spelled out specific hour requirements.

"But at the University of Minnesota, assignment of on-call hours and monthly free weekends will provide more time from work than recommended by the ACGME special committee," Chou said.

Jacott predicts that most specialties that have not yet endorsed changes will do so during the next year. The holdouts probably will be specialties—such as dermatology or laboratory medicine—that don't have many problems with residents being roused for emergency cases in the middle of the night, he said.

Once the ACGME adopts new rules for each specialty, teaching hospitals must comply or face probation and the threat of losing their accreditation, Jacott said.

Minnesota's teaching hospitals already have implemented a number of changes, particularly in staffing. Most of them have hired nurse practitioners and physicians' assistants to perform some of the tasks that used to be assigned to residents, such as drawing blood or starting IVs.

At Mayo's private teaching hospitals—Saint Marys and Rochester Methodist—residents never do either procedure, according to Nelson. "That frees up two to three hours a day to talk to patients," he said.

Patient time

The time residents spend with patients is an issue at many teaching hospitals. In a study of 35 house officers on duty at night at three of Minnesota's public teaching hospitals, Nicole Lurie, M.D., and her colleagues found that doctors spent up to 12 percent of their time doing procedures such as drawing blood.

At Hennepin County, residents spent only an average of 31 minutes per shift examining patients; in the three hospitals, the residents spent no more than five minutes each night talking to patients' families, the researchers reported in the June 22, 1989, *New England Journal of Medicine* (see interview with Dr. Nicole Lurie, page 627).

Concern about the amount of time house officers spend with their patients is hardly new. In 1930, a hospital administrator told the New York Hospital Association that interns were spending too much time charting and too little time on patient care.

Residents still spend a considerable amount of their time charting, according to Lurie's study of residents at HCMC, the University of Minnesota, and the Veterans Administration Medical Center. In fact, that study found that interns spent more time documenting a new patient's history and physical examination than actually taking the history and performing the exam.

Night time

Lack of sleep was another problem documented by Lurie's study, which found that, on average, residents and interns at the three teaching hospitals got only four to five hours of sleep each night, usually less than 40 minutes without interruption, and typically were paged 25 times.

Harris said that with less than six hours' sleep, she starts the next day feeling tired. And when she does sleep, it's on a thin mattress with the constant anxiety about the inevitable call. "It's far from being in your own bedroom," she said. "You never know when the beeper's going to go off and what's at the other end of the phone call."

Fatigue and sleep deprivation are major issues in the discussion of working conditions, but program directors disagree about their significance. Although sleep deprivation research dates to the emphasis on aerospace medicine in the 1960s, few studies have focused specifically on house officers. What little research exists is contradictory, especially in experiments aimed at finding suboptimal performance in tasks requiring manual dexterity. Some researchers think that tired doctors simply learn to compensate. But the most often-cited study, by R. C. Friedman and colleagues, found sleep loss had negative repercussions. When they were deprived of sleep, house officers told to find arrhythmias in an electrocardiogram made more errors and were slower in completing the task than they were when they were rested, the study found.

Certainly people feel worse when deprived of sleep, but it's not a quality-of-care issue, said Rank. "Decisions made in the middle of the night are the same as during the day," he said.

Nelson disagrees. "The studies say it's not an issue, but I can't help but think that it is," he said. "I don't know how it can help but affect quality of care."

To deal with the problem of the traditional 36-hour call schedule, the Veterans Administration Medical Center in Minneapolis last year launched a night float system. A team of two residents and two interns comes on duty at 6 p.m. and works until 8 a.m., handling admissions that otherwise would interrupt the sleep of residents who already had worked all day. Another night float team comes on duty at 10 p.m. and works until 8 a.m.

Residents there like the night float, according to Connie Parenti, M.D., assistant chief of medicine at the VA hospital. The drawback is that during the two weeks of night float rotation, those interns and residents do not receive much teaching, but the system is working well, she added.

"It definitely was a plus for us, but I don't know if it's right for everybody," Parenti said.

It apparently wasn't right for HCMC. Although a night float system was proposed there, the idea was rejected. "The residents were dead set against it," said Rank.

Harris said that residents objected to it because they feared that handing off patients to another doctor at dawn would interfere with continuity of care. "No one knows like you do why one antibiotic was chosen over another," she said.

And residents also feared that it would deprive them of educational experiences. "You need to follow a patient from the start all the way through," she said. "My class thought [the night float] was not a good idea. It's taking away a lot of the learning opportunity, too."

Night call is less problematic in the small town of Rochester, because residents can take night call at home. Neurosurgery residents do that every night, Mayo's Cofield said.

Mayo's residents in general surgery, emergency, and anesthesiology who stay up all night are off the next day, Cofield said. Whenever they have "an intense call experience," residents have compensation time for rest and study, he said.

At the new VA hospital in Minneapolis, the on-call rooms have been designed for more quiet and comfort than is traditional, according to the VA's chief of staff Robert Petzel, M.D. But still, night call is a particularly onerous duty, he said.

Some of the best years. . .

Yet despite the stresses, Harris said her residency is rewarding even if she does feel that she is at the mercy of her beeper. "The second year, when you work the hardest, really pays off," she said. "You stay up all night and think you helped somebody."

But residents such as Harris are ambivalent about their efforts, and they approve of program changes such as a mandatory day off. "I don't want to work as hard as now for the rest of my career," Harris said.

Harris said that she and her colleagues often quote the *The House of God*, Dr. Samuel Shem's 1978 novel about the harrowing internship year. Like the residents in the book, Harris and her peers sometimes grow hostile and cynical, referring to their patients as "gomers," a label that means "get out of my emergency room." But they also are proud of their own stamina and hard work.

"I'm proud of what I've accomplished," Harris said. "I was in a situation two years ago where I was worrying about what is second nature now. I enjoy what I'm doing. I work hard, but I get a lot out of it. It's not fun, but everyone needs to go through it."

"It's important for the profession to police itself because each specialty has its own peculiar way of doing practice."

Author Norman Cousins of UCLA encountered that same pride in 1981, when he compared the internship to a fraternity hazing and called it bad public policy. His essay in the *Journal of the American Medical Association* provoked an angry response from dozens of letter writers. Most of them wrote fondly about their internships, describing them as the best years of their professional lives.

The fact is, residency is neither an initiation rite nor a jail sentence. It is a stint in graduate school that is part of the process of acquiring professional expertise, insists Dr. Henry Buchwald.

"It's not something you have to go through in order to get to something else," he said. "If you feel that way, you don't belong here. You have to say, 'Here I am; I'm doing my life's work.'"

Delores Lutz is a Twin Cities free-lance writer who also is the medical reporter for the Minnesota Daily, *the University of Minnesota's newspaper.*

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Submit at any time essays, letters, book reviews, and reports and commentary that do not require peer review.

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Examples:

1. Benson RC Jr.: Laser photodynamic therapy for bladder cancer. Mayo Clinic Proc 61:859-864, 1986.
2. Guttormson NL, Bubrick MP: Mortality from ischemic colitis. Dis Colon & Rectum, to be published.
3. Chaterjee SN: Use of GOR-TEX grafts as vascular access procedure for chronic hemodialysis. Abstract of a paper submitted to the European Society for Artificial Organs Eighth Annual Meeting, Copenhagen, August, 1981.
4. Thompson NW: Thyroid and parathyroid, in Welch KJ, Randolph JG, Ravitch MM, et al. (eds): Pediatric Surgery, ed 4. Chicago, Year Book Medical, 1986, vol 1, pp 522-533.

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Volvulus of the Gallbladder
Report of Two Cases and Review of the Literature

Peter B. Alden, M.D.; John B. Miller, M.D.; William G. Gamble, M.D.

Torsion or volvulus of the gallbladder is a rare cause of acute cholecystitis. Although it has been reported in all age groups, it is most commonly seen in the elderly.[1] With our increasingly aged population, it behooves the clinician to keep this entity in mind when treating the older patient with abdominal pain. We present two cases of torsion of the gallbladder and review the clinical and pathological aspects of this disease.

Case 1

A 78-year-old woman was admitted to Methodist Hospital, St. Louis Park, Minnesota, with bilious vomiting and an eight-hour history of severe, steady, right upper quadrant pain radiating to the back. The patient could recall some vague upper abdominal pain and fatty food intolerance during the three months prior to admission. Over the past several years, she had lost five inches in height due to severe osteoporosis with kyphoscoliosis. In addition, she had undergone thyroidectomy for simple goiter, two rectal procedentia repairs, and varicose vein stripping. She was taking levothyroxine and acetaminophen with codeine at the time of admission. She did not smoke and used alcohol rarely.

Physical exam revealed a heart rate of 84, blood pressure of 160/80, a respiratory rate of 20, and a temperature of 98 degrees. Chest exam revealed bibasilar rales. Her spine was severely kyphotic. Systolic and diastolic aortic murmurs were present on cardiac auscultation. She was tender in the right upper quadrant of the abdomen, and Murphy's sign was present. Bowel sounds were normal.

The patient's hemoglobin was 13.5 gm%, and her white blood cell count was 9,100/ml with 78% polymorphonuclear cells, 20% lymphocytes, and 2% monocytes. Electrolytes, liver function tests, and amylase were all within normal limits. Chest X-ray confirmed the severe kyphosis and showed clear lung fields. The electrocardiogram revealed evidence of an old inferior myocardial infarction. Abdominal ultrasound (Figure 1) demonstrated a distended, fluid-filled, thick-walled gallbladder with surrounding edema. There were no stones.

The presumptive diagnosis of acute cholecystitis was made, and the patient was scheduled for cholecystectomy the following day. In the interim, her pain increased in intensity, and a vague right upper quadrant mass became palpable.

Exploration was done through a right subcostal incision. The only attachment of the gallbladder to the liver was a thin, short mesentery that contained the cystic duct and artery. The gallbladder was twisted 360 degrees clockwise on the cystic duct and was gangrenous (Figure 2). Cholecystectomy was carried out without incident.

Cultures of the bile grew no organisms. Gross pathological examination of the gallbladder showed interstitial edema and hemorrhage. The serosa was dusky. Multiple mucosal ulcerations infiltrated by polymorphonuclear cells and areas of transmural necrosis were evident on microscopic examination.

The patient's postoperative recovery was complicated by an anterior myocardial infarction with congestive heart failure. She was discharged on postoperative day 14 after completing a cardiac rehabilitation program.

Case 2

A 91-year-old woman was admitted to the United Hospital, St. Paul, Minnesota, emergency department complaining of lower chest and abdominal pain with nausea and weakness of 18 hours' duration. She had no change in stools and had not vomited.

Her medical history included hypertension, aortic stenosis, congestive heart failure, chronic diarrhea, and degenerative joint disease. She was taking hydrochlorothiazide with triamterene, diphenoxylate with atropine, triazolam, and nitroglycerine.

Physical examination revealed an ill-appearing, thin, elderly woman in mild distress. Her heart rate was 90/min, blood pressure 170/70, respiratory rate 22, and temperature 97.2 degrees. She was not jaundiced. Her spine was kyphotic. There was a vague epigastric tenderness, and she had normal bowel sounds. The rectal exam was normal.

The patient's white blood cell count was 8,800 with 84% polymorphonuclear cells, 2% bands, 8% lymphocytes, 5% monocytes, and 1% basophils. Hemoglobin was 13.9 gm%. Electrolytes, liver function tests, and amylase were all within normal limits. Urinalysis was normal. Chest X-ray showed no acute infiltrate.

On the day following admission,

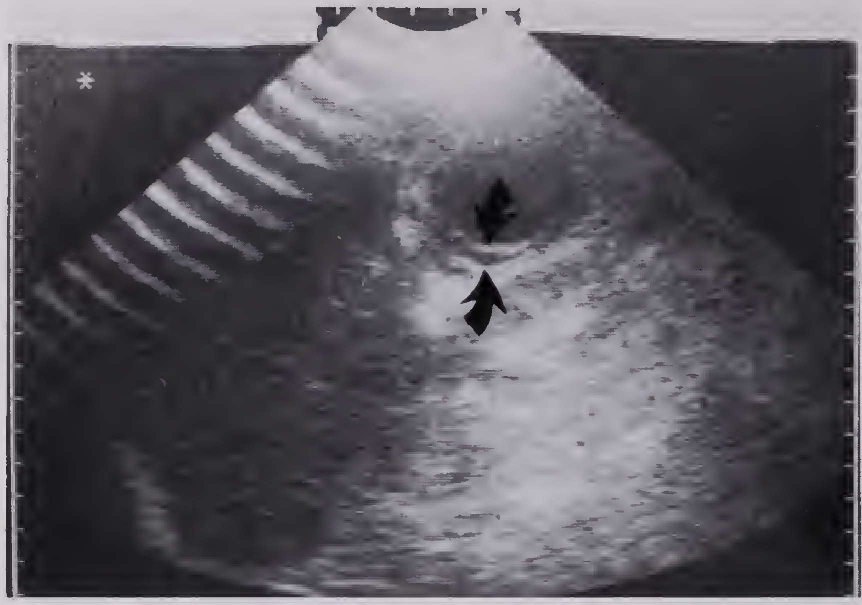

FIGURE 1—Case 1: Gallbladder ultrasound showing distended gallbladder with wall thickening and surrounding edema (arrows).

the patient developed increased abdominal pain with exquisite right upper quadrant tenderness and rebound. There was some fullness in the right upper quadrant, but no discrete mass was palpable. Her white count rose to 17,000 with 77% polymorphonuclear cells, 9% bands, 5% lymphocytes, and 9% monocytes. She was placed on tobramycin, metronidazole, and ampicillin. Ultrasonography (Figure 3) revealed a large, distended, fluid-filled gallbladder, which was tender when the ultrasound probe was passed over it. There were no stones. The common bile duct was 7mm in diameter.

Exploration through a right subcostal incision revealed turbid, straw-colored fluid in the right upper quadrant. The gallbladder had a very short mesentery containing the cystic duct and artery and otherwise had minimal attachment to the liver. The gallbladder was twisted on the cystic duct and was gangrenous but not ruptured. The gallbladder was rotated back, and cholecystectomy was carried out without difficulty. A cystic duct cholangiogram was normal.

Cultures of the bile grew *E. coli* and two strains of enterococcus. Microscopic examination of the gallbladder showed transmural infarction with polymorphonuclear cell infiltration.

Postoperatively the patient developed psychosis secondary to the abrupt withdrawal of her triazolom but otherwise did well. She was discharged on postoperative day 8.

Discussion

Acute torsion of the gallbladder is rare. Approximately 300 cases have been reported in the literature.[2] There seems to have been an increase in the number of case reports of late,[3,4] and almost all of them have been in elderly patients. These case reports and the two cases presented here describe a syndrome that seems to arise in elderly, kyphotic women with visceroptosis.[1-18] Their posture and the loss of tissue elasticity are thought to result in stretching of the gallbladder's attachments to the liver.[9] This elongates a preexisting mesentery, allowing torsion to occur. The presence of a loose, mesentery-like attachment to the liver was reported in five of 100 cadaver dissections by Brewer.[19] However, a free-floating gallbladder with the only attachment to the liver being a short mesentery containing the cystic duct and artery is much less common in our experience and that of others.[1] In his review of congenital anomalies of the gallbladder, Gross[9] summarized the findings in 50 cases of free-floating gallbladder reported between 1908 and 1933. In all of these cases, the gallbladder was attached to the liver by a long, thin mesentery or

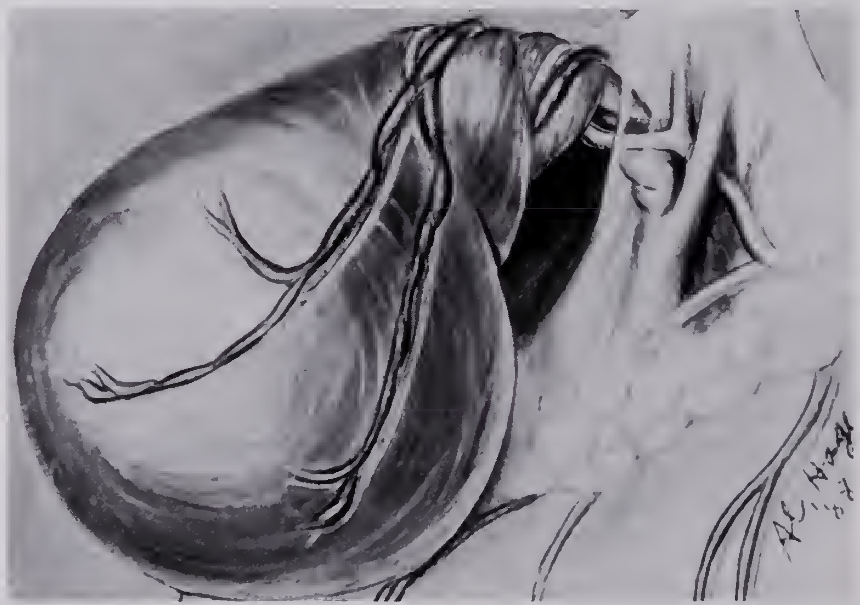

FIGURE 2—Twisted gallbladder with short mesentery containing only the cystic duct and artery.

not attached at all. The majority of these cases were seen in the elderly. Gross surmised that the requirements for volvulus were the congenital anatomic predisposition of a minimally fixed gallbladder coupled with loss of fat and elasticity leading to visceroptosis and increased mobility of the organ. The actual initiator of the torsion has been speculated upon by various authors.[1,2,17] Vigorous peristalsis in the transverse colon, duodenum, or gallbladder itself; violent falls; and tortuous cystic arteries have all been implicated, but convincing proof for any of these mechanisms is lacking.

Interestingly, the first reported case of volvulus of the gallbladder was in a 25-year-old pregnant woman.[20] Prior to her presentation with volvulus, she had been thought to have a cystic tumor that was freely mobile throughout the abdomen. She developed fever and abdominal pain. At operation there was "torsine" of the cystic duct and perforation of the gallbladder, which was packed with stones. The right kidney's attachments were also abnormal, allowing it to lie anterior to the ascending colon. Cholecystectomy was performed, and the patient recovered, although she did miscarry. Although volvulus of the gallbladder has been reported in children,[21] the youngest patient being five years old,[22] the overwhelming majority of cases occur in the elderly.[2,9] The two cases described here are rather typical in their presentation. A notable aspect in each was the rapid increase in the severity of abdominal pain. Lau et al.[10] pointed out that the clinical features of acute torsion of the gallbladder can be grouped into three triads: physical characteristics—thin, elderly, with a deformed spine; symptoms—abdominal pain, early onset of vomiting, and a short history; and physical signs—abdominal mass, lack of toxemia or jaundice, and a discrepancy between a markedly elevated pulse and a minimally elevated temperature. The two cases reported here conform with these triads fairly well.

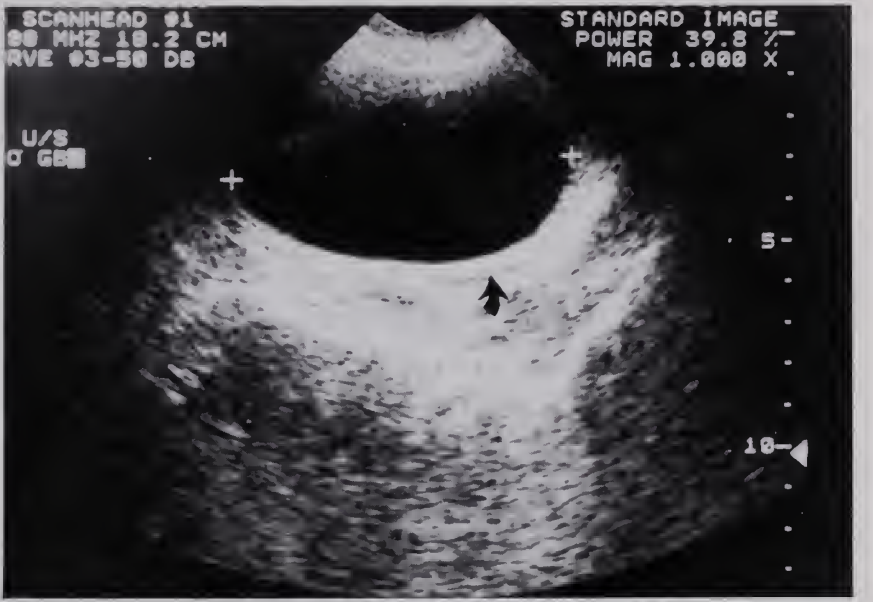

FIGURE 3—Case 2: Gallbladder ultrasound demonstrating distention and either surrounding edema or submucosal edema (arrows).

The sonographic findings of volvulus of the gallbladder are nonspecific, consisting of distention and wall thickening.[13,16] Gallstones may or may not be present. It is not possible to differentiate acute volvulus from other causes of acute cholecystitis sonographically.[13]

Realistically, the preoperative diagnosis of volvulus of the gallbladder will seldom be made, despite the exhortations of some authors.[1] It is probably not terribly important that volvulus be recognized as the cause of acute cholecystitis preoperatively. As in any case of acute cholecystitis, the patient must be followed very carefully if immediate operation is not carried out, and one should proceed with the operation if any clinical deterioration occurs. If the operation is carried out promptly, results should be satisfactory, even if gallbladder volvulus is not suspected preoperatively. Obviously, improvement with medical therapy cannot be expected with complete volvulus of the gallbladder.[3] The surgeon should be particularly wary of any elderly patient with symptoms and signs suggestive of acute cholecystitis without evidence of gallstones, since ischemic cholecystitis or volvulus are both possibilities. Both of these conditions lead to gangrene and perforation.

The surgical treatment of volvulus of the gallbladder is extremely simple because the attachments to the liver are minimal. One must be careful, however, to ascertain that the common bile duct is not drawn up into the torsion of the cystic duct.[4,23] The simplest way to accomplish this is to unwind the volvulus prior to clamping and dividing the cystic duct and artery.

Both patients discussed here had minimal signs of systemic illness; they had normal heart rates, temperatures, and white blood cell counts. No diagnostic test indicated the presence of volvulus of the gallbladder. The rapidly evolving right upper quadrant pain and tenderness led to appropriate early surgical treatment. The operative findings and satisfactory outcome in both cases show the importance of avoiding delay in the treatment of cholecystitis in the elderly.

Summary

Two cases of volvulus of the gallbladder are presented. The cases are typical of this rare entity in that

both occurred in elderly, thin, kyphotic women whose symptoms rapidly increased in severity. The sonographic findings are of a distended gallbladder with a thickened wall. Gallstones may or may not be present. As gangrene and perforation result from volvulus, early cholecystectomy is mandatory.

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References

1. Short AR, Paul RG: Torsion of the gallbladder. Br J Surg 22:301-309, 1934.

2. Steiber AC, Bauer JJ: Volvulus of the gallbladder. Am J Gastroenterol 78:96-98, 1983.

3. McHenry CR, Byrne MP: Gallbladder volvulus in the elderly, an emergent surgical disease. J Am Geriatr Soc 34:137-139, 1986.

4. Whipple RD, Sabo RR: Acute torsion of the gallbladder. Am J Surg 137:798-799, 1979.

5. Ahmed SR: Torsion of the gallbladder, a case report. S Afr Med J 68:614, 1985.

6. Butsch JL, Luchette F: Torsion of the gallbladder. Arch Surg 120:1323, 1985.

7. Carter R, Tompson RJ Jr, Brennan LP, Hinshaw DB: Volvulus of the gallbladder. Surg Gyn Obst 116:105-108, 1963.

8. Echave V, Hampson LG: Volvulus of the gallbladder: Case report and review of the literature. Can J Surg 18:439-442, 1975.

9. Gross RE: Congenital anomalies of the gallbladder, a review of one hundred and forty-eight cases, with a report of a double gallbladder. Arch Surg 32:131-162, 1936.

10. Lau WY, Fan ST, Wong SH: Acute torsion of the gallbladder in the aged: A re-emphasis on clinical diagnosis. Aust NZ J Surg 52:492-494, 1982.

11. Lee SS, Song KT: Acute torsion of the gallbladder. J Iowa Med Soc 72:405-406, 1982.

12. Lin HC, Piro JF: Acute torsion of the gallbladder. Conn Med 40:372-373, 1976.

13. Quinn SF, Fazzio F, Jones E: Torsion of the gallbladder: Findings on CT and sonography and role of percutaneous cholecystectomy. Am J Radiol 148:881-882, 1987.

14. Schlinkert RT, Mucha P Jr, Farnell MB: Torsion of the gallbladder. Mayo Clin Proc 59:490-492, 1984.

15. Taha AM, Welling RE: Acute torsion of the gallbladder in a 100-year-old female patient. J Nat Med Assoc 77:404-410, 1985.

16. Wellstad M, Kam J, Funston MR: Radiological pointers to preoperative diagnosis of torsion of the gallbladder. S Afr Med J 58:980-982, 1980.

17. Wetstein L, Attkiss M, Aufses AH Jr: Acute torsion of the gallbladder: Review of the literature and report of a case. Am Surg 42:138-141, 1976.

18. White D: Gallbladder infarction due to torsion. Med J Austral 2:285, 1980.

19. Brewer GE: Preliminary report on the surgical anatomy of the gallbladder and ducts from an analysis of one hundred dissections. Ann Surg 29:721-730, 1898.

20. Wendel AV: A case of floating gallbladder and kidney complicated by cholelithiasis with perforation of the gallbladder. Ann Surg 27:199-202, 1898.

21. Chilton CP, Mann CV: Torsion of the gallbladder in a nine-year-old boy. J Roy Soc Med 73:141-143, 1980.

22. Cuervo S, Cuervo T: A proposito de dos casos de volvulo biliar en dos niños de cinco y once años de edad respectivamente. Arch Soc Estud Clin Habana 33:295-305, 1939.

23. Roussouw J: Torsion of the gallbladder—a case where the gallbladder was firmly attached to the liver. S Afr Med J 44:47-48, 1970.

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HIV Testing: Counseling Those at Risk

Robert C. Rinaldi, Ph.D., and John J. Henning, Ph.D.

This article provides physicians with a brief outline of pretest and posttest counseling to accompany HIV testing.

HIV Blood Test Counseling

The impact of human immunodeficiency virus (HIV) disease on the health care system is increasing. Specialized centers alone are unable to provide all required services. Physicians and other health professionals will encounter a growing number of concerned individuals and family members who need counseling about possible exposure to HIV.

Although counseling related to HIV-antibody testing has been widely recommended,[1-3] the medical literature contains little in the way of specific guidelines to conduct this counseling. The following provides a brief outline of some essential elements required to conduct HIV-antibody blood test counseling.

Pretest Procedures

During the pretest session the physician must provide information about HIV, AIDS, and the test, conduct a sex and drug history, and provide counseling. The patient should be told about the virus, HIV-related diseases, routes of transmission, and methods of reducing the risk of infection. This can be accomplished through a variety of media including videotape, audiotape, printed matter, group lecture, and one-to-one interaction.[4]

The pretest session also must include a patient history of sexual behavior and drug use. The physician should use frank, nonjudgmental, open-ended questions to determine the patient's risk of HIV infection. The physician must be sure that the patient understands the words being used.

Discussing sexual behavior is difficult for many patients and physicians. The interview style and terminology used should be tailored to suit the comfort of the individual patient and physician (also see "Beware of Buzzwords," page 658). The patient's sexual orientation is less important than the specific sexual practices in which he or she engages.

Discussing drug use with patients also may be difficult. However, information on intravenous drug use and needle sharing is essential. A full drug-use history, including substances such as alcohol and marijuana, also can be helpful.

Pretest counseling should include discussion of medical, psychological, and social implications of the HIV-antibody blood test. Specific recommendations for behavior change must be based on the physician's assessment of risk. Finally, the physician can assist the patient in deciding whether or not to be tested.

It is essential during the pretest counseling session to:

- Ask directly why the patient believes he or she needs to be tested.
- Explain that the test determines the presence or absence of antibodies to the virus.
- Discuss the meaning of a positive test result: The individual is infected and assumed contagious but does not necessarily have AIDS.
- Discuss the meaning of a negative test result: The individual is not currently demonstrating infection but is **not** "protected" against the virus.
- Discuss the possibilities of false-positive or indeterminate results.
- Discuss ways to modify behavior to reduce risks.
- Discuss the confidentiality of test results in relation to office/clinic procedures and state reporting requirements.
- Discuss potential benefits of anonymous testing.
- Discuss the stress often related to waiting for test results and possible reactions to learning results (e.g., depression and anxiety).
- Discuss potential negative social consequences of being tested and/or being seropositive (employment, housing, insurance, and personal relationship ramifications).
- Assist the patient in making a decision about testing.
- Obtain consent before voluntary testing is conducted (local statutes pertaining to adults and minors should be consulted).
- Make an appointment for a return face-to-face visit to give and discuss test results.

Posttest Counseling

Disclosure of the test result is best done at the beginning of the posttest session in a direct manner. Many patients anxiously anticipate the test result and are eager to

AIDS

Beware of Buzzwords:

They misinform, insult, and promote ignorance.

These buzzwords were assembled by the AIDS Coalition to Unleash Power (ACT UP). The first seven comments, in quotes, were made by Jody Powell, former White House press secretary, and appeared in *You Can Do Something About AIDS,* published by The Stop AIDS Project, Boston, Massachusetts, 1988.

Term	**Problem**
Bodily fluids	". . . should never be used without an explanation of which bodily fluids actually contain the HIV virus in concentrations sufficient to transmit the disease. . . Sweat, saliva, and tears are all bodily fluids but do not carry a threat of HIV infection. Reports on AIDS should make it clear that semen, vaginal fluids, and blood are the concern here."
General population	". . . artificially divides the American people into those who have the disease and those who do not. Everyone who has AIDS—regardless of sexual orientation, race, gender, or how they were exposed to the virus—is part of the general population.'"
High-risk groups	". . . implies that some kind of demographic trait, rather than behavioral practice, is responsible for AIDS exposure." *Appropriate term:* High-risk behavior.
AIDS victims	"People with AIDS are not victims; they are people struggling to live normal lives in the face of a fatal disease. We don't refer to people with other diseases as victims." *Most preferable phrase:* People with AIDS.
HIV virus vs. AIDS	"Many people still confuse exposure to the HIV virus with the disease itself. More than one million people are believed to have been exposed to the virus; some 50,000 actual cases have been reported."* Always explain the difference.
Condoms	"Reports recommending condom use to reduce the risk of HIV exposure should clearly state that latex condoms with a spermacide are preferable (natural lamb condoms may not provide the necessary protection)."
Intimate sexual contact	". . . a polite phrase that doesn't tell the reader anything (many people regard kissing and fondling as intimate). Certain sexual practices—especially unprotected anal intercourse—are known to pose a much greater chance of HIV transmission than others." This should be made clear.
Innocent victims	A term sometimes applied to children with AIDS or those who contracted AIDS through blood transfusions; a value judgment that implies that some people with AIDS may be guilty of something. "Victims" is also a problem (see above).
AIDS carrier	The term "carrier" is reminiscent of the typhoid hysteria of the 1920s and can incite similar reactions. *Appropriate terms:* HIV (antibody)-positive person or person with AIDS, depending on condition.
AIDS activism vs. gay rights	AIDS activist groups are sometimes incorrectly called gay rights groups. While some AIDS activists also campaign for gay rights, and some issues may overlap, the two subjects should not be confused.
Having sex	Vague; see "Intimate sexual contact" above.

*Outdated figures; currently, more than 1.5 million people are HIV-positive, and more than 100,000 people have AIDS.

learn the findings. After the result is disclosed, the patient should be encouraged to express his or her feelings. Repeating the patient's remarks and labeling his or her underlying feelings is often helpful.

Reporting a positive result can be difficult. If the patient had predicted a positive result during the pretest counseling session, the physician might say, "Well, your prediction was right. Your tests show that you have the virus." Although it is important to be honest and straightforward in reporting a positive result, it is equally important to give the seropositive patient hope. Quoting the annual percentage of seropositive individuals who actually become ill (approximately 7% to 10% per year) and mentioning the ongoing scientific search for effective treatments and vaccines might prove helpful.

The physician must assess the patient's understanding of the result by asking a question such as "Now that you know you are antibody positive (or negative), what does this test result mean for you?" The physician must help the patient understand and assimilate the information. A review of the information conveyed in the pretest session should be conducted.

When the result is negative, the patient's understanding of how to prevent future infection must be assessed. When the result is positive, the patient must be advised on how to avoid infecting others. He or she must understand that infection is probably lifelong but that having a positive antibody test alone does not mean one has AIDS. It is also important to communicate to seropositive individuals that they are probably infectious to others by the established routes of transmission and that there is currently no way to predict with certainty when and if clinical symptoms will develop. Antibody-positive persons should be told:

- not to donate blood, semen, or body organs;
- not to share personal hygiene items (e.g., razors, toothbrushes);
- to employ what have come to be known as "safer sex practices";
- to inform physicians and dentists of their serologic status; and
- to encourage sexual partners and needle contacts to seek evaluation and serologic testing.

The physician must be sensitive to the wide range of psychological reactions possible when the test result is given. For seronegative patients, an immediate reaction of surprise and relief may occur, followed by an overall reduction of psychological distress and anxiety. Seropositive individuals may react with expression of disbelief, anger, fear, guilt, or self-recrimination. Clinical depression often occurs

AIDS Information/Resources

Minnesota Counseling and Testing Sites

Hennepin County Community Health Department
Red Door Clinic
525 Portland Avenue
Minneapolis, MN 55415
(612) 347-2437

St. Paul Division of Public Health
Room 111 Clinic
555 Cedar Street
St. Paul, MN 55101
(612) 292-7752

Duluth Community Health Center
2 East 5th Street
Duluth, MN 55805
(218) 722-1497

Olmsted County Health Department
1650 4th Street SE
Rochester, MN 55902
(507) 285-8338

Stearns County Community Health Services
Quiet Care Clinic
3400 1st Street North
Fourth Floor
St. Cloud, MN 56303
(612) 255-6155

Clay County Health Department
123½ 21st Street South
Moorhead, MN 56560
(218) 299-5222

SEMCAC Clinic
64½ West 5th Street
Box 712
Winona, MN 55987
(507) 452-4307

One-To-One Clinic
310 Bell Avenue
Mankato, MN 56001
(507) 388-9950

AIDS Information Resources/Support Groups

Minnesota AIDSline
1-800-248-AIDS
870-0700 (metro area)

Aliveness Project
(612) 822-7946

Minnesota AIDS Project
2025 Nicollet Avenue South
Suite 200
Minneapolis, MN 55404
(612) 870-7773

American Social Health Association Hotline
1-800-342-AIDS

AZT Hotline: 1-800-843-9388

Minnesota Department of Health
717 Delaware Street SE
Minneapolis, MN 55440
(612) 623-5414

AIDS Clinical Trials Unit
Box 437
University of Minnesota
Health Sciences Center
Minneapolis, MN 55455
(612) 625-1462

among those testing positive for HIV antibody.[5-6] In some, the depression may lead to suicidal thoughts or attempts.[7]

Seropositive patients sometimes require repeated sessions, supportive services, and monitoring of psychological functioning. A psychiatric referral should be made for patients who require assistance in adapting to current conditions or managing feelings of depression or anxiety beyond what the primary care physician can offer. A patient may also benefit from counseling hot lines, HIV support groups, and/or psychotherapy. A schedule to monitor medical status must be determined as well.

The posttest session also should include an assessment of the patient's commitment to altering high-risk behaviors. The physician must work with the patient to promote behavior change by reiterating routes of transmission, discussing risks, and highlighting methods of risk reduction.

In summary, essential elements of the posttest counseling session include:

- providing the test result,
- allowing the patient to express feelings and reactions,
- assessing the patient's understanding of the test results,
- reviewing routes of transmission,
- assessing the patient's psychological condition,
- recommending psychiatric follow-up when appropriate,
- assessing risk behavior and commitment to risk-reduction strategies,
- recommending medical follow-up, and
- recommending additional support services as needed.

Conclusion

The need for HIV-antibody blood test counseling has been widely acknowledged.[1,2] Physicians must be prepared to provide such services for their patients. The brief guidelines presented here serve as an outline for HIV-antibody blood test counseling to patients.[8]

Robert Rinaldi and John Henning are on the staff of the American Medical Association's Group on Science and Technology. This revised article is reprinted, with permission, from the August 1989 Journal of the Kentucky Medical Association *and is based upon the AMA publication "HIV Blood Test Counseling: AMA Physician Guidelines." The authors can be reached at the AMA, 535 North Dearborn Street, Chicago, Illinois 60610.*

References

1. Board of Trustees: (Report LLL) Progress in the prevention and control of AIDS. Annual meeting, American Medical Association, Chicago, Ill., June 1988.

2. Perry SW, Markowitz JC: Counseling for HIV testing. Hosp Comm Psychiatry 39:731-738, 1988.

3. Henry K, Maki M, Crossley K: Analysis of the use of HIV antibody testing in a Minnesota hospital. JAMA 259:229-232, 1988.

4. AIDS counseling and HIV-antibody testing: A position paper. Coalition for AIDS prevention and education. Washington, DC, American Psychological Association, 1987.

5. Faulstich ME: Psychiatric aspects of AIDS. Am J Psychiatry 144:551-556, 1987.

6. Miller D: HIV counseling: Some practical problems and issues. J Soc Med 80:278-280, 1987.

7. Marzuk PM, Tierney H, Tardiff K, et al.: Increased risk of suicide in persons with AIDS. JAMA 259:1333-1337, 1988.

8. Rinaldi RC: HIV blood test counseling: AMA physician guidelines. Chicago, Ill., American Medical Association, 1988.

Hospital-Physician Alliances in an Evolving Marketplace

Daniel K. Zismer, Ph.D.

The future favors a restructuring of the health care delivery system in the United States.[1,2,3] As politicians, health care economists, and government agencies wrestle with broader and longer-term policy issues, hospitals and physicians face their own critical questions, such as: How are hospital-physician relationships likely to evolve? and, How can the more productive aspects of the relationship be preserved?

This article does not presume to foretell how the health care delivery system will evolve, nor does it propose the next generation's ideal hospital-physician cooperative model. Rather, it identifies and discusses specific market and economic pitfalls to be avoided in the restructuring of hospital-physician relationships and suggests ways to maintain positive hospital-physician relations in a turbulent market.

Changing Roles for Hospitals and Physicians

Traditionally, the roles of hospitals and physicians were fairly circumscribed. Hospitals provided inpatient care to the sick as directed by a patient's personal physician. Physicians controlled access to patients, to a large degree, and hospitals housed staff and technology to serve the needs of both physician and patient. Physicians and hospitals operated as independent businesses, each charging the payer system or patient for costs plus a markup for profit.

Disruption of the delivery system began as payers recognized their ability to exert control over both price and units of service delivered.[4] This, coupled with advances in technology, an oversupply (or at least maldistribution) of care providers, and cost-containment pressures, has led to vigorous competition for the health care dollar. One result has been a concerted effort to restructure the delivery system through a variety of methods. For hospitals, the new catch phrase is market share. For physicians, it is income preservation. Hospitals tend to view physicians as an efficient route to the market, and physicians seek the capital and management resources available through hospitals.

While the objectives for both remain clear, the pathways to restructuring are broad and varied and, at times, confusing. Over the past several years an interesting progression of hospital-physician alliances has unfolded to include capital equipment partnerships, medical practice acquisitions, direct employment of physicians, and hospital-physician group mergers.[5]

Legal and tax issues notwithstanding,† hospitals and physicians must be mindful of what is actually being achieved by such restructuring and at what cost. While most hospital executives would rather avoid unproductive "capital shifts," many are facing the prospect of paying twice for market share—once by more traditional methods and again when physicians strategically located in their market share put their practices on the auction block. This leaves hospital executives asking how they can avoid paying for business they already have and whether they can afford to do nothing as their competitors bid for their market.

Incidentally, physicians are not necessarily the "culprits" in this scenario, as some would like to believe. Most doctors have been led to believe that long hours and diligent work will lead to valuable medical practices that can be sold upon retirement. However, prevailing market trends, government policy, legislation, and macroeconomic shifts have eroded the value of the medical practice. For many physicians, selling their practices has become a "now or never" proposition.

Beginning with a Focus

To cope effectively with this economic transformation of the provider system, providers must first understand that a gradual, thoughtful evolution is preferable to a wholesale, catastrophic shift. Hospitals need a sound philosophical framework and focus to guide the structuring of what are likely to be novel hospital-physician transactions.

A straightforward operating philosophy established at the top and easily understood throughout the organization is a necessary first step. The following eight questions are useful when establishing an operating philosophy and when evaluating any new hospital-physician arrangements:

---

†A thorough discussion of the legal aspects of hospital-physician alliances, joint ventures, and partnerships is beyond the scope of this article. Before pursuing cooperative opportunities, readers are encouraged to review existing and impending legislation with respect to Medicare fraud and abuse, private inurement, and fee splitting. Violations may include civil and criminal penalties and exclusion from Medicare and Medicaid participation and may jeopardize the tax-exempt status of non-profit organizations.

- Is new business created?
- Is the hospital's market position enhanced?
- Are competitive pressures stemmed?
- Is the hospital's mission in its community better served?
- Are the risks worth the rewards?
- How is the balance of the medical staff affected?
- Does the anticipated return warrant the investment relative to other available opportunities?
- Does the proposed structure meet all applicable legal tests?

The answers to these questions may indicate, for example, that the development of a primary care satellite as a joint venture with a group of family physicians might fair well, while the acquisition of that same group may not.

Certainly some opportunities will not meet these tests, and hospital executives need to be prepared to say no to potentially unqualified deals and be willing to have physicians (i.e., their customers) seek other alliances.

In the long run, a hospital, its medical staff, and the community will be better served by a strategy that seeks to maximize its return on "strategic capital" with business transactions that are well reasoned, properly structured, and considerate of all the players.

Common Pitfalls

A cursory analysis of failed ventures between hospitals and physicians reveals a handful of pitfalls that can make success unlikely:

- The premise on which the original concept is devised is unsound. Example: the primary objective is to get more money to the primary care physicians rather than to enhance the market position and stability of the physicians.
- The initial business objectives and expectations are not made clear. Example: it may be unclear what the acquisition of the practice will yield relative to the investment required.
- Risk and reward aren't shared proportionately, undermining the motivation of one or all of the partners. Example: the hospital plans to put up the capital, and the physicians will receive their ownership without charge.
- Partnership responsibilities are not made clear at the outset.
- The venture is unlawful in whole or in part.
- Governance and decision making are left unclear until the first significant decision is required. Example: the decision-making limits of the board and the shareholders are not well defined.
- Inadequate management resources are devoted to the project. Example: plans call for the hospital administrator in charge of ancillary services to also manage acquired physician practices, when that person has no experience in medical office management.

This list lacks a reason commonly cited for the failure of many businesses—insufficient capital. This is typically not a problem for many hospital-physician ventures. In fact, in many instances, too much capital is made available, a situation that is closely tied to another common problem—an inability or unwillingness to terminate a failed venture. It is sometimes easier to keep feeding cash into a bad deal than to admit its failure.

Cooperating as Partners

Many opportunities in today's health care market are disguised as problems. Problem solving between hospital executives and physicians may serve to stem a shortsighted and unproductive strategy by either party. Too often, ventures are predicated on the objective of taking revenue from each other rather than cooperating as partners. This approach is best illustrated by an example involving the current trend toward ambulatory surgery, which now accounts for more than half of all surgeries performed.[6] In this common scenario, physicians confront a hospital executive with the prospect of building and operating their own surgery center—a significant threat to most hospitals, especially those in second- and third-tier markets. The hospital executive responds with not-so-veiled threats and retaliatory posturing.

A more beneficial strategy would be for that same executive to get directly to the heart of the matter by asking what is motivating the physicians' behavior. Ostensibly, operating a surgery center offers physicians few inherent benefits, besides perceived profitability. This being the case, it is well worth it for the physicians and the hospital to consider the following questions:

- In what ways, if any, would a freestanding surgery center be of greater benefit to physicians than the existing hospital-based facility (e.g., profits, control, equipment and facilities, market position, etc.)?
- How much capital is required, what are the sources, and how are the personal balance sheets of the physicians affected?
- What level of return is expected and how does it compare with similar levels of investment in alternative development strategies?
- What are the long-term management and marketing implications?
- How will impending third-party payment system changes affect the long-term financial performance of the venture?
- What are the costs and implications of failure?
- Can the objectives of both the hospital and the physicians be achieved through a partnership arrangement?

Of course, the last question is most critical, as far as the hospital executive is concerned. It is assumed that the surgery center is just one means to an end, leaving room for exploration of other options. In this instance, the physicians might be convinced that a more profitable and less risky option would be to add surgeons to the practice (including subspecialists) with a hospital investment in facilities, equipment, and staff to enhance the overall surgical capabilities and profitability of the physicians and the hospital.

It is important in today's marketplace for hospitals and physicians to understand that the other necessarily has limits. In the scenario described above, the hospital executive, while agreeing to help the physicians meet their financial needs, must also make clear the hospital's inability to tolerate a wholesale out-migration of surgeries. The goal is to keep the situation from deteriorating into a territorial standoff. Herein lies the need for hospitals and physicians to begin with a basic foundation of trust and a mutual understanding that each is of significant importance to the other and that long-term success will require some flexibility that may not always be to the liking of both parties.

Envisioning Opportunity

For most hospitals and physicians, an economic transformation of the health care delivery system is inevitable. Both must accept the need for a deliberate change in their traditional roles.

Without this acceptance, some hospitals and physicians may turn against each other as a result of revenue, market share, and territorial disputes. To remain productive business partners, physicians and hospitals must be open to novel, cooperative strategies and must base their alliances on sound business principles facilitated by open and productive problem solving.

Because the ultimate success of any such cooperative venture is impossible to foretell, hospitals and physicians will also need to become more tolerant of business partnership failures. Long-term success in the marketplace will require business relationships that are built on mutual trust and appreciation for each other's business and professional needs. Without this trust and a willingness to cooperate as partners, hospitals and physicians can look forward to less control over their destiny in an unforgiving economic climate and marketplace.

Daniel K. Zismer is a co-founder and principal of Partners Medical Management, Ltd., a Minneapolis-based consulting firm specializing in ambulatory care and hospital-physician ventures and is a co-founder and principal of the Genesis Development Group, a medical venture capital firm.

References

1. Fuchs VR: The "competition revolution" in health care. Health Affairs, Summer, 1988.
2. Reinhardt Uwe E: Debating for profit health care and the ethics of physicians. Health Affairs, Summer, 1986.
3. Brown LD: Health policy in the United States, issues and options. Ford Foundation Project on Social Welfare and the American Future, Ford Foundation, September, 1988.
4. Gabel J, Jajich-Tolh C, de Lessovoy G, Rice T, Cohen H: The changing world of group health insurance. Health Affairs, Summer, 1985.
5. Zismer DK, McCally JF, Zagaria PA, MacArthur JS: Successful joint ventures for today's competitive health care marketplace. Group Practice Journal, September/October, 1988.
6. U.S. Hospitals. The Future of Health Care. Touche Ross, June, 1988.

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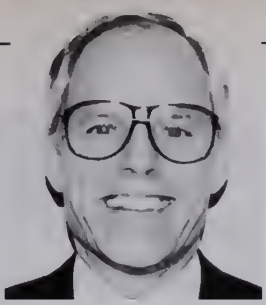

ROBERT D. CHRISTENSEN, M.D.

PRESIDENT'S LETTER

Maintaining a Professional Ethic 'Higher than Law'

A rigorous ethical code distinguishes the medical profession from a business or craft. In fact, says AMA president Alan R. Nelson, M.D., "Our ethical principles are not only different than law—they are higher than law."

As physicians, we are bound by oath to place the welfare of our patients before our own self-interest. Now, however, policymakers in government and business are asking us to take on new roles that may conflict with a commitment to our patients' welfare. In her Perspectives piece in this issue of *Minnesota Medicine* (page 639) Barbara Elliott warns that, "The professional ethic of service and advocacy is being eroded by the business of medicine." There is mounting pressure on physicians to serve as the "gatekeepers" who are expected to curb runaway medical costs by rationing health care.

Elliott quotes ethicist Edmund D. Pellegrino, who points out that some aspects of gatekeeping are inherent in a physician's responsibility to prescribe care. In fact, physicians currently monitor 75 percent of medical care expenditures, says Pellegrino, who distinguishes between "de facto" gatekeeping and two new versions of gatekeeping that are driven by financial incentives rather than by a desire to benefit patients.[1]

As de facto gatekeepers, physicians, with "diagnostic elegance" and "therapeutic parsimony," determine the degree of treatment needed to cure the patient or to alleviate suffering. By avoiding unneeded procedures, they avoid unnecessary expense or risk to the patient. Pellegrino calls this a "morally mandatory" form of gatekeeping.

A second "morally dubious" version of gatekeeping casts the physician in the role of the rationer of health care by appeals to economic self-interest. Systems such as DRGs and some HMOs that offer financial incentives to limit medical treatment strike at the heart of the physician-patient relationship—a trust that the physician will place the patient's welfare above all other concerns. Expectations that a physician should watch the bottom line as closely as the patient's chart threaten to undermine the professionalism of medicine and to damage the physician-patient relationship.

A third "morally indefensible" form of gatekeeping Pellegrino describes is one in which incentives for overutilization lead physi-

American Medical Association Principles of Medical Ethics

Preamble:

The medical profession has long subscribed to a body of ethical statements developed primarily for the benefit of the patient. As a member of this profession, a physician must recognize responsibility not only to patients, but also to society, to other health professionals, and to self. The following principles adopted by the American Medical Association are not laws, but standards of conduct which define the essentials of honorable behavior for the physician.

I. A physician shall be dedicated to providing competent medical service with compassion and respect for human dignity.
II. A physician shall deal honestly with patients and colleagues and strive to expose those physicians deficient in character or competence or who engage in fraud or deception.
III. A physician shall respect the law and also recognize a responsibility to seek changes in those requirements which are contrary to the best interests of the patient.
IV. A physician shall respect the rights of patients, of colleagues, and of other health professionals, and shall safeguard patient confidences within the constraints of the law.
V. A physician shall continue to study, apply, and advance scientific knowledge, make relevant information available to patients, colleagues, and the public, obtain consultation, and use the talents of other health professionals when indicated.
VI. A physician shall, in the provision of appropriate patient care, except in emergencies, be free to choose whom to serve, with whom to associate, and the environment in which to provide medical services.

cians to encourage the use of health services or facilities for the physician's personal financial gain. The patient is regarded as a client and a source of profit.

Some conflict of interest is inherent in the physician-patient relationship. We have the same need to earn a living and support our children as anyone else. It is reasonable to expect adequate financial rewards for years of education and for the stress and hard work of a medical career. Self-interest can never be completely eliminated, but it has always been relegated to a distant second place behind our professional commitment to our patient's welfare. We must resist any public policy that threatens to reverse the order of our priorities.

As medical technology advances and costs continue to rise, the moral dilemmas facing us will become increasingly difficult. Already we are confronted with the hard task of balancing the patient's best interests with society's need to control costs.

Clearly it is crucial for physicians to remain leaders in setting guidelines for medical ethics. We must continue to define and maintain an ethical code more stringent than law. We must assure the public that we will continue to uphold our professional commitment to the welfare of our patients and that we will refuse to accept a role that conflicts with our oath to serve as our patients' advocates.

REFERENCE

1. Pellegrino E: Rationing health care: The ethics of medical gatekeeping. J Contemp Health Law and Policy 2:23, 1986.

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References:

1. A. Morales et al., New England Journal of Medicine: 1221. November 12, 1981.
2. Goodman, Gilman — The Pharmacological basis of Therapeutics 6th ed., p. 176-188. McMillan December Rev. 1/85.
3. Weekly Urological Clinical letter, 27:2, July 4, 1983.
4. A. Morales et al., The Journal of Urology 128: 45-47, 1982.

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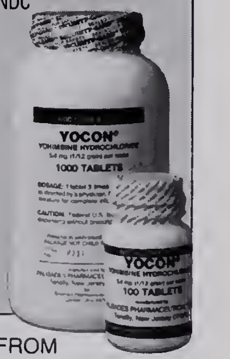

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do not communicate very well with each other. I think many places are suffering from that phase of evolution. Plus, in competitive academic pursuits, there's a divergence that takes people away from each other toward their own narrow interests—subspecialty interests and even sub-subspecialty interests—to the point where they exclude almost everyone else around them. Unfortunately, the institutions sometimes become the least important thing to people in academic science career trajectories.

REECE: *Have physicians retained a sense of collegiality and common purpose at Hennepin County Medical Center?*

INGRAM: I think they have. After just a few months, of course, it's a little early for me to say. But I believe both collegiality and a sense of shared purpose exist at this institution.

Minneapolis' vs. Boston's Health Care Climate

REECE: *Did you also come here to observe Minnesota's health care delivery system at work?*

INGRAM: Indeed. Actually that's very well put, because I think it is working. I believe the levels of dyspepsia seem to be less severe here than they are in other places where this evolution is taking place. Of course, it's progressed further here.

REECE: *Would you compare for me the differences in the delivery systems here and in Boston? Or is that a fair question to ask after you've been here such a short time?*

INGRAM: It's a fair question, but the answer may not be very accurate. I've found there is still more of a fee-for-service sector in Boston than there is now in Minneapolis, but Boston is moving rapidly toward the very same thing. Hospitals are obviously trying to position themselves competitively by offering much more than the traditional inpatient services. Boston hospitals may seem community oriented, but by and large, their actions are self-serving and aimed at survival in a competitive world, which is very understandable.

Several of the things that have taken place in Minneapolis are now happening in Boston. For example, several years ago many of us read in the *Boston Globe* that our hospital, the Brigham and Women's Hospital, had made a major exclusive arrangement with the Harvard Community Health Plan, the largest HMO in Massachusetts. The programmatic and cultural implications of that were enormous. Yet most of us found this out in the newspaper. As far as I can tell, this arrangement has worked very well. The house staff is doing well under this system; they've hired very good people. But the major points of abrasion, I think, have not yet been fully experienced with that juxtaposition of the traditional Brigham staff with this large HMO.

REECE: *I have a stereotypical view of Boston's medical structure, namely that its physicians are a vast collection of specialists and that it doesn't have much of a primary physician infrastructure—that it's the zenith of overspecialization. Is that true?*

INGRAM: I don't know the actual numbers, but no one can be faulted for observing what is observable. Those things that project from the outer surface are exactly what you describe. However, there are superb general internists in the Boston area. They're part of the very rich and strong fabric of the medical community there, and they don't project above the surface all that much. That brings me to the issue of the role of general internal medicine as part of an academic center.

Trends in Internal Medicine

REECE: *What is the issue?*

INGRAM: The issue is this: What is the scholarly base of general internal medicine? We've seen academic medicine evolve over the past 30 years, and we've watched as people have become interested in subspecialties and pursued them. Now, as these subspecialties become more and more institutionalized with their own sub-boards and their own national organizations, there's been a movement away from the base that we would call general internal medicine.

For many years, the day-to-day care of a large clinic population or even the primary care of a group of a rather elite population was not a very important part of the role of the academic center. Some people recognized that many years ago, but only in the past few years, for both educational and fiscal reasons, have most centers started to bring in general internal medicine to give them some status. Many times, someone adept at administration and dealing with people and internal medicine was brought in to run the internal medicine clinics. From that sprung what is now called general internal medicine. Now the visible export of this group is something you might want to call clinical epidemiology or health care policy research. All you need to do is look at the program of the Society of General Internal Medicine and see how its members are trying to establish themselves in one of several of these activities. These are important activities and should be nurtured as programs. Meanwhile, the real fabric has been held together by people who do the day-to-day care, people who are not visible beyond the horizon, people who are the lifeblood of the institution, both in terms of patient care and teaching programs.

REECE: *But isn't that lifeblood now threatened? I recall when internal medicine had a "Black Tuesday" two years ago; internal medicine residencies didn't fill during the matching program, even in elite institutions. How are you going to restore that lifeblood? How are you going to persuade people to be general internists?*

INGRAM: It's one of the real challenges facing internal medicine nationwide. It will be interesting to see how we rise to that challenge. There are several other things that are even more disturbing farther down, toward the root of the structure. For instance, the declining number of medical school applicants. We're dealing with a diminishing pool of talent among those who are accepted.

In medical school, people start making choices for their continued lifestyle, and internal medicine is being bumped by things that appear to offer more rewarding lifestyles.

So we've got to think about lifestyle. One real virtue of an HMO, for example, is that it allows a very reasonable lifestyle in terms of hours committed, in terms of certainty of income, in terms of certain corporate- or group-created perquisites.

What do we say to people who ask if internal medicine offers the most rewarding career? As far as I'm concerned, there are several things that make that so. As we continue to make advances, we see more and more things coming back into the fold of internists. Take coronary artery disease, for example. For a couple of decades it's clearly been a surgical disease if you look at the numbers. Now angioplasty is performed by cardiologists. Or look at the Nobel Prize work of Goldstein and Brown on LDL cholesterol metabolism, which ultimately led to the development of the HMG-CoA reductase inhibitors. Their results indicate that we may actually be able to prevent a disease that has fed a huge industry for years. That's the purview of the internist—checking, assessing, and monitoring cholesterol levels—modifying risk factors. There is even evidence that some of the medical measures actually reverse the severity of some atherosclerotic lesions. Who knows? The day may come when neither surgery nor angioplasty is needed.

There are several interesting treatments on the horizon that may completely change the need for surgery in other areas. For example, consider the promise of 5-alpha reductase inhibitors, agents that shrink the prostate of dogs. If they work equally well in humans, even a banal disease like benign prostatic hypertrophy will enter into the realm of the internist.

"In medical school, people start making choices for their continued lifestyle, and internal medicine is being bumped by things that appear to offer more rewarding lifestyles."

REECE: *Benign prostatic hypertrophy is banal to everyone but the one who has it.*

INGRAM: You're right. It's not banal to you and me these days. I'm looking forward to this development with great personal interest. I may need a shrink myself.

REECE: *Please continue your stream of thought and your flow of talk. Or, if I may be presumptuous enough to use your first name, roll on Roland.*

INGRAM: A very bad pun on my name, but I'll dribble along. As I was saying, what were once surgical diseases may eventually fall into the purview of the internist, who would be functioning not only as someone who treats disease and identifies biochemical and anatomical lesions, but as someone who averts problems that would be almost certain if intervention weren't well planned and executed. These are just examples where more and more things are coming back into internal medicine.

Internal medicine offers, within the field of medicine and in the context of seeing patients, challenging scientific and intellectual issues that provide far more stimulating intellectual possibilities than a specialty that narrows you too soon and too much. In internal medicine, you can narrow your interests, but you can always broaden them again.

REECE: *Are you saying that our society needs more gifted generalists and fewer narrow specialists?*

INGRAM: That's what I'm getting at. You want narrow specialists when you have something narrowly special to be handled. So we should always have specialists as long as there are those narrow problems. But the worst thing you can have is a technology or process that is designed to handle narrow problems and have those problems disappear, and you still function, not recognizing their disappearance. To me that's a frightening possibility.

REECE: *So what you're also saying is that medicine needs its philosophers, and the general internist is in a position to be a philosopher?*

INGRAM: Indeed. Medicine needs someone with perspective, someone who is watching the changing scene, someone who is not over-committed to a biological process or a particular solution to a malfunction, someone who is willing to deal with all sorts of options. I'm not saying that specialists cannot do that. I'm just saying that the internist is in the best position to respond to the changing perceptions and the changing fads.

Today's Resident

REECE: *You and I graduated from medical school in the same year, 1960. Do you think the house officers of today work differently or have different expectations than people of our era?*

INGRAM: They certainly work differently in the sense that they work shorter hours. They're on call less often. It's interesting though, they have a quiver that's full of so many more arrows—both diagnostically and therapeutically—than we had at that time. We spent many hours handholding—doing things more or less illustrated by early medicine romanticists. Today's residents do less of that, because they have much more to offer and to think about in terms of taking care of patients. A few years ago, their expectations were justifiably great in terms of future income and future position in the community. Nowadays, I'm not sure what their real expectations are. I sense, though, in dealing with them daily, that they have the same enthusiasm, the same lust for knowledge, the same curiosity, and the same good intentions to do the right thing for the patient. I don't see that much change over the years. Frankly, I feel encouraged by what I've seen.

America's 'Health Care Crisis'

REECE: *I know you spent a sabbatical in England in 1985, and you've devoted some thought to the evolution of the American health care system. What are your thoughts about the current "health care crisis" in America?*

INGRAM: I've learned a great deal about it over the years. Schwartz and Aaron's book, *The Painful Prescription*, for instance, describes these two very different systems, the American and the English, going in two very different directions but with the same overall implications, i.e., resources are limited. The key is learning how to allocate these resources properly. Given these two directions—the National Health Service on the one hand and our health care system on the other—each has its virtues. Anything that's in the process of evolving is painful for people who like certainty, who like the comfort of structure. So it's an uncomfortable moment for most people in medicine right now. For others who are more adventuresome, who like storms at sea, it's far more stimulating. As far as patients go, they're not being cheated yet, but we'll have to wait and see and be prepared to avert or rectify any situations where patients might be shortchanged.

Visions for HCMC

REECE: *Let's go back to a more circumscribed institutional world. What do you hope to do at Hennepin County Medical Center? What is your vision?*

INGRAM: I don't really mind forecasting unless it involves the future. You're asking for a forecast or perhaps a set of hopes and aspirations. Which of these can be fulfilled depends on things that are probably not under my control. As things are now, this is a superb county facility that is well supported in terms of staff and technology. Its organization allows us to deal with what I think should be taught without great constraints—how to take care of patients in this changing world. At the same time, there is a heavy emphasis on the act of teaching and how it's done—the effect it has on the students, scholarship, and house officers. That means we must take what is not very well known or not formalized and try to give it a frame of reference. If it's in science, we'll call it research. If it's a small question at the root of the problem, we'll call it basic research. People have aspirations for all levels of scholarship in academic medicine right now, and we have the freedom and, currently, the resources, to do that at Hennepin County Medical Center.

My hope is to keep that momentum going, to keep that tradition alive, and to maintain and build upon the excellence of this academic county medical center. I want to maximize the resources and thrust of a community hospital with strong community support. When you get down to it, it's a matter of getting the best people you can, retaining the best people you've got, and letting them express themselves in ways that please them. Somehow that process comes to good. ■

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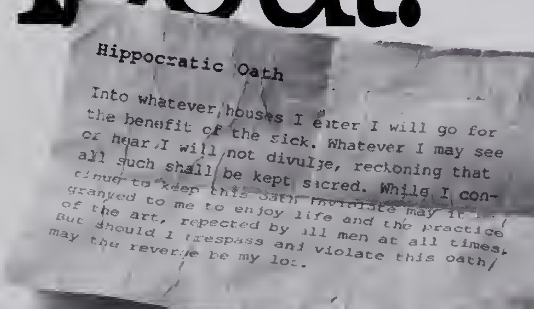

Hippocratic Oath

Into whatever houses I enter I will go for the benefit of the sick. Whatever I may see or hear I will not divulge, reckoning that all such shall be kept sacred. While I continue to keep this oath inviolate may it [illegible] granted to me to enjoy life and the practice of the art, repected by all men at all times. But should I trespass and violate this oath, may the reverse be my lot.

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NEWS CLIPS

HCMC: TOP TRAUMA CARE

The Hennepin County Medical Center (HCMC) in September announced that it has been verified as a Level I Trauma Center by the American College of Surgeons (ACS). HCMC is the only hospital in Minnesota to receive ACS Level I verification.

A Level I Trauma Center is considered the most qualified facility for treating trauma patients and for promoting trauma education and research.

BME PRESIDENT

Cassius M. C. Ellis, M.D., director of surgical education, Metropolitan-Mount Sinai Medical Center, and clinical professor of surgery, University of Minnesota, has been elected president of the Minnesota Board of Medical Examiners (BME) for 1990. President-elect Ellis now serves as chairman of the BME's Licensing Committee.

The BME defines and regulates the licensure of all physicians in the state. Ellis, who is serving his second term on the board, was also recently elected president of the Minneapolis Surgical Society.

NEW DOCS EARN LESS

Physicians just out of residency in five major specialties earned, on average, $4,024 (4.6 percent) less nationwide in 1988 than they did in 1987, according to a survey of American Group Practice Association members. The five specialties are: family practice, internal medicine, pediatrics, obstetrics, and orthopedic surgery, all of which are classified by the association as primary care specialties for salary comparisons. In contrast, average salaries of newly recruited experienced physicians increased in all five specialties but pediatrics in 1988.

Average starting salaries for new physicians in 1988 were: family practitioners, $61,187, down $2,000 or 3.3 percent; internists, $66,255, down $1,783 or 2.6 percent; pediatricians, $61,054, down $525 or 0.9 percent; obstetricians, $87,250, down $6,940 or 7.4 percent; and orthopedic surgeons, $98,721, down $8,808 or 8.2 percent.

Newly recruited experienced physicians' average salaries last year were: family practitioners, $72,293, up $2,878 or 4.0 percent; internists, $78,624, up $4,546 or 6.1 percent; pediatricians, $68,908, down $1,771 or 2.5 percent; obstetricians, $120,551, up $10,356 or 9.4 percent; and orthopedic surgeons, $130,584, down $1,362 or 1.0 percent.

TWIN CITIES HOSPITAL NEWS

► The number of patients treated in Twin Cities hospitals—considered a barometer of their economic health—increased in 1988 by 4,512 or 1.5 percent to 314,445, according to a report released in September by the Council of Hospital Corporations. Although the number of metro-area residents admitted decreased for the 10th straight year, patients from outstate Minnesota and out of the state more than picked up the slack. There were 15.4 percent more nonmetro-area patients in 1988 than in 1987. The number of Twin Citians admitted declined 0.8 percent.

► The same Council of Hospital Corporations annual report ("Trends in Twin Cities Hospital Utilization") revealed that the average hospital stay in Twin Cities hospitals decreased for the seventh straight year. Average stay in 1988 was 5.63 days, a 22.7 percent drop since 1982, when the average stay was 7.28 days. HMO members (who accounted for 25 percent of hospital patients) stayed in the hospital the shortest amount of time (3.87 days), according to the report, followed by the uninsured (3 percent of patients), who stayed an average of 4.24 days, patients covered by Blue Cross and Blue Shield of Minnesota (30 percent of patients, 5.52-day average), those covered by Medicaid (11 percent of patients, 6.3-day average), and those covered by Medicare (17 percent of patients, 7.69-day average).

► The Council of Hospital Corporations in September also revealed in an informal shopping guide to Twin Cities hospitals that metropolitan-area hospital rates increased 7.98 percent in 1988. Increases in past years were: 12.7 percent in 1983, 2.4 percent in 1984, 5.3 percent in 1985, 8.7 percent in 1986, and 4.98 percent in 1987. Hospital officials said more increases are likely.

The Council of Hospital Corporations is a Minneapolis-based trade group that includes 23 hospitals.

GIFT FERTILIZATION

Abbott Northwestern Hospital officials announced the Minneapolis hospital's first successful birth resulting from a new fertilization technique.

The baby girl, born September 7, was conceived using Gamete Intra-Fallopian Transfer (GIFT). In the GIFT process, eggs and sperm are obtained from the reproducing couple and then sequentially and separately loaded into a catheter tube and placed into each of the woman's fallopian tubes.

This is the second GIFT baby born through the efforts of Minnesota programs. There have been seven GIFT pregnancies and two deliveries from Minnesota programs. The first baby born as a result of a GIFT program in the United States was in 1984, and the nationwide success rate of the procedure is about 30 percent.

CARDIAC CARE WITH A HEART

The Twin Cities first family-focused cardiac care unit, the Don Reioux Cardiac Rehabilitation and Family Center, opened September 17 at United Hospital in St. Paul. Adjoining the cardiac special care unit on the third floor of the hospital, the 2,700 square-foot facility provides a "home away from home" where recovering cardiac patients and their families can learn how to live longer, fuller lives through changes in diet, exercise, and stress management.

Using education to augment drugs or surgery, United dietitians, cardiac rehabilitation specialists, nurses, and physicians will use the center to emphasize day-to-day healthy living to prevent disease.

HEALTHEAST EXEC RESIGNS

Donald C. Mills, president of the HealthEast Foundation and vice chairman of the HealthEast board, announced in September that he will resign in December. Mills, 55, said his resignation is not related to the financial problems the five-hospital HealthEast system has undergone in the past two years.

ASK-A-NURSE

Health One Corporation in August unveiled a 24-hour, free telephone health information and referral line called "Ask-A-Nurse," staffed by registered nurses. The nurses will provide basic health care information to Twin Cities callers and arrange for referrals to more than 1,000 physicians and community health services.

Ask-A-Nurse may be reached 24 hours a day by calling (612) 338-8888.

AZT MARKED DOWN

Citing decreased financial risk, and under pressure from AIDS activists, the medical community, and the government, Burroughs Wellcome Co., the manufacturer of AZT, announced in September that it would reduce the price of the drug by 20 percent, effective immediately. AZT, the only licensed antiviral AIDS drug, previously cost patients about $8,000 a year. The new price, coupled with studies that have shown the drug to be effective at lower doses, results in a cost of about $2,200 a year for patients taking the lowest possible dosage of AZT.

DIURETICS AND HEART ATTACK RISKS

A recent study indicated that diuretics, the most widely used class of blood-pressure-lowering drugs, can increase the likelihood of heart attacks by altering the body's biochemical makeup. The study, by Thomas Pollare, M.D., and colleagues at the University of Uppsala in Sweden, was published in the September 28 *New England Journal of Medicine*. The findings add to the growing pool of data indicating that side effects of diuretics may offset, at least in part, the drugs' benefits.

Diuretics reduce blood pressure by depleting the body of sodium and, at the same time, the researchers said, cause a sort of chemically induced diabetes. In the study, the body tissues of patients taking the diuretic hydrochlorothiazide showed insulin resistance, which increases the risk of heart disease.

Of the estimated 60 million Americans with blood pressure high enough to require treatment, 15 to 25 million take diuretics.

THE LORDS OF DISCIPLINE

Physician-owned companies that insure physicians against malpractice suits are more effective than state licensing boards in identifying and disciplining negligent physicians and in deterring substandard medical practice, according to a study in the September 8 *Journal of the American Medical Association.*

Approximately 40 percent of all practicing physicians are insured by companies owned and operated by physicians, according to the authors, William B. Schwartz, M.D., of Tufts University School of Medicine, Boston, and The RANDCorporation, Santa Monica, California, and Daniel N. Mendelson of Tufts University School of Medicine. "Physician-owned companies are unique in that the physicians they insure have a powerful financial incentive to help detect and discipline negligence-prone colleagues," they wrote. These insurance plans minimize risk by carefully screening applicants for prior claims and evidence of negligent behavior.

Physician-owned insurance plans use extensive peer review and employ elaborate appeal mechanisms for physicians who do not meet acceptable standards of practice, the authors said. Negligent physicians may lose their coverage or face other penalties, such as surcharges or restrictions on their medical practice, in less serious cases.

The authors compared the performance of state licensing boards with that of physician-owned insurance companies in penalizing negligent physicians throughout 1985. They estimated that state boards suspended or revoked the licenses of no more than 0.08 percent of U.S. physicians. By contrast, the percentage of practitioners insured by physician-owned companies who lost their coverage due to negligence was approximately eight times greater (0.66 percent).

WHO WILL SUE?

The notion that poor patients are more likely to sue for medical malpractice is a pernicious myth that makes it more difficult for the poor to obtain medical care, according to a report in the September 8 *Journal of the American Medical Association*. Studies now "universally demonstrate what common sense told us all along: Poor people do not account for disproportionate numbers of malpractice suits—in fact, they are *less likely to sue* than are middle-class or privately insured patients," wrote Molly McNulty, J.D., of the National Health Law Program, Washington, D.C. For example, a 1987 U.S. General Accounting Office report found that Medicaid recipients account for only 5.8 percent of settled claims, for which insurance status was known, even though they constitute about 9 percent of the U.S. population. McNulty describes the numerous social, economic, and legal factors that make it extraordinarily difficult for poor people who are victims of malpractice to obtain legal representation and to pursue their right to compensation in court.

FIBER UP

Eating more fiber apparently shrinks precancerous polyps in the lower intestine, thereby reducing colon-rectal cancer risk, a recent study determined. The researchers, Jerome J. DeCosse, M.D., and colleagues at the New York Hospital-Cornell Medical Center, New York City, showed for the first time that an ordinary food item—bran cereal, in this case—can reverse the progression to cancer by inhibiting a premalignant lesion. The findings appear in the September 6 *Journal of the National Cancer Institute*.

Each year colon-rectal cancer afflicts more than 150,000 Americans and kills more than 60,000.

CANCER RISK FOR PILL USERS

In a study of 118,273 women, researchers determined that women who did not take the pill until their mid-20s do not elevate their risk of developing breast cancer. The research, by Walter C. Willett, M.D., of the Harvard School of Public Health and colleagues, was the largest to date to examine the effects of birth-control pills, but it does not dispel concerns raised in several other studies that women who begin to use birth control pills in their teens and early 20s increase their breast cancer risk by as much as 700 percent.

C-SECTIONS FOR TINY INFANTS

The use of cesarean sections in the delivery of very low-birthweight infants, independent of other complications, does not improve their chances for survival, according to a report in the September 15 *Journal of the American Medical Association*.

Although tiny infants (less than 3½ pounds) delivered by cesarean section have a higher rate of survival during the first 24 hours, they also exhibit a higher risk of dying within the next six days, according to Michael H. Malloy, M.D., M.Sc., of the Prevention Research Program, the National Institute of Child Health and Human Development, and colleagues. Therefore, there is little evidence to justify the "sharp increase" in the use of the procedure to deliver small infants, particularly those weighing less than 1½ pounds, the authors said.

FAT KIDS

Children between the ages of 6 and 17 are getting fatter and less fit, according to a study of 12,000 children who participated in the Chrysler Fund-Amateur Athletic Union Physical Fitness Program between 1980 and 1988. The random sampling taken from the millions of program participants showed a 10 percent decline in a test measuring heart-lung strength and a decline from 43 percent to 32 percent in the number of boys and girls who achieved at least "satisfactory" scores on the entire fitness test.

Kansas youngsters scored the best overall in both 1987 and 1988, while Minnesota children registered the eighth-best AAU scores in 1988.

ACCUTANE OVERPRESCRIBING

Chairman of the Accutane monitoring group of the U.S. Food and Drug Administration, Robert Nelson, said in September that of the 50,000 to 70,000 women who use the acne-fighting drug, only 5,000 to 20,000 of them have acne severe enough to warrant use of the drug. Because of the dangers of birth defects in children born to Accutane users, Nelson urged physicians when prescribing the drug to their female patients to limit use to cases of severe cystic acne.

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You may serve near your home, at times convenient for you, or at Army medical facilities in the United States and abroad. There are also opportunities to attend conferences and participate in special training programs, such as the Advanced Trauma Life Support Course.

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CALENDAR OF MEDICAL EVENTS

November 2-3, 1989

SECOND ANNUAL MEDICAL INTENSIVE CARE CONFERENCE

James Leatherman, MD, Chairman
Hennepin County Medical Center, Minneapolis

DAY I

Morris Davidman, MD, Morning Moderator

8:20 INTRODUCTION/OVERVIEW—J. Leatherman, MD
8:30 ACUTE RENAL FAILURE—M. Goldstein, MD
9:10 ACUTE HEPATIC FAILURE AND DECOMPENSATED CHRONIC LIVER DISEASE—M. Freeman, MD
9:50 STRATEGIES FOR ENHANCING DRUG ELIMINATION OR REDUCING DRUG TOXICITY IN DRUG OVERDOSE —P. Pentel, MD
10:50 CASE MANAGEMENT - PANEL
12:00 LUNCH

James Leatherman, MD, Afternoon Moderator

1:00 MECHANICAL VENTILATION: PRINCIPLES AND COMMON PROBLEMS—C. Iber, MD
1:40 DIFFICULT WEANING—S. Davies, MD
2:20 LIFE-THREATENING PNEUMONIAS: COMMUNITY AND HOSPITAL ACQUIRED—P. Peterson, MD
3:20 CASE MANAGEMENT - PANEL

4:30 ADJOURN

DAY II

Conrad Iber, MD, Morning Moderator

8:30 CONTROVERSIES IN MANAGEMENT OF LIFE-THREATENING ACID BASE AND FLUID-ELECTROLYTE DISORDERS—M. Goldstein, MD
9:10 APPROACH TO THE COMATOSE PATIENT —D. Anderson, MD
9:50 BIOMEDICAL ETHICS IN THE ICU—R.Cranford, MD
10:50 CASE MANAGEMENT - PANEL
12:00 LUNCH

James Leatherman, MD, Afternoon Moderator

1:00 DIAGNOSIS AND MANAGEMENT OF MYOCARDIAL ISCHEMIA IN THE MEDICAL-SURGICAL ICU —S. Sharkey, MD
1:40 DIAGNOSIS AND MANAGEMENT OF SUPRAVENTRICULAR ARRHYTHMIA—D. Salerno, MD
2:20 HEMODYNAMIC MONITORING WITH THE PA CATHETER, PRINCIPLES AND COMMON PITFALLS —J. Leatherman, MD

3:00 ADJOURN

This program has been approved for 11.00 hours of AMA Category I credit. Application has been submitted to the American Academy of Family Physicians for Prescribed credit.

November 17. 1989

CLINICAL MANAGEMENT OF OSTEOPOROSIS Second Annual (1989)

Robert Berkseth, MD, Co-Chairman
Charles Smith, MD, Co-Chairman
Sheraton Midway Hotel, St. Paul

Charles Smith, MD, Morning Moderator

8:30 OSTEOPOROSIS:EPIDEMIOLOGY/TYPES/RISK FACTORS—R. Berkseth, MD
9:00 LABORATORY INVESTIGATION OF METABOLIC BONE DISEASE—C. Smith MD
9:30 SKELETAL BASIS OF BONE DENSITOMETRY —R. Mazess, PhD
President, Lunar Radiation, Madison, WI

10:45 THE ROLE OF BONE BIOPSY IN THE DIAGNOSIS AND TREATMENT OF OSTEOPOROSIS —S. Hodgson, MD
Director, Mayo Bone & Mineral Metabolism Clinic
Director, Mayo Bone Histomorphometry Lab
11:15 THERAPEUTIC OVERVIEW OF OSTEOPOROSIS —C. Smith MD
11:30 CALCIUM/VITAMIN D IN THE THERAPY OF OSTEOPOROSIS—C. Chesnut, MD
Director, Osteoporosis Research Center
University of Washington

12:00 LUNCH WITH FACULTY

Robert Berkseth, MD, Afternoon Moderator

1:15 ESTROGEN: RATIONALE FOR USE IN OSTEOPOROSIS —H. S. Beyer, MD
1:45 ESTROGEN: CLINICAL USE—P. Miller, MD
2:15 CALCITONIN: PAIN CONTROL OF FRACTURES ASSOCIATED WITH OSTEOPOROSIS —C. J. Baumgartner, Jr., MD

3:30 SODIUM FLUORIDE IN THE TREATMENT OF OSTEOPOROSIS—S. Hodgson, MD
4:00 ADFR—P. Miller, MD
Head, Metabolic Bone Disease Society
Lakewood, Colorado
4:30 THE ROLE OF PREVENTION IN THE MANAGEMENT OF OSTEOPOROSIS—R. Berkseth, MD

5:00 ADJOURN

This program has been approved for 7.00 hours of AMA Category I credit. Application has been submitted to the American Academy of Family Physicians for Prescribed credit.

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HENNEPIN HCMC

For further information, contact the Office of Academic Affairs
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CME IN MINNESOTA

Provided through the MMA Medical Education Subcommittee on CME Resources

For assistance with scheduling meetings or for information on future medical meetings and CME courses at the state and national level, please contact the MMA office: 2221 University Avenue SE, Suite 400, Minneapolis, Minnesota 55414; (612) 378-1875. Information for each entry is arranged by date; name of program; primary sponsor; location; contact person.

NOVEMBER 1989

2-3 **2nd Annual Medical Intensive Care Conference** Hennepin Faculty Associates; Hennepin County Medical Center, Minneapolis, Minnesota. CONTACT: Eugenia Kassar, HCMC, Hennepin Faculty Associates, 701 Park Avenue, Suite 4220, Minneapolis, Minnesota 55415; (612) 347-2075.

3-4 **Depression: Advances in Recognition and Treatment** Minnesota Psychiatric Society, Mental Health Association of Minnesota, Midwest Mental Health Institute; Registry Hotel, Bloomington, Minnesota. CONTACT: Tim Schuh, CME Office, 800 East 28th Street, Minneapolis, Minnesota 55407; (612) 863-5461.

3-4 **Current Concepts of Cardiology for the Primary Care Physician** Abbott Northwestern Hospital; Hudson House Inn, Hudson, Wisconsin. CONTACT: Tim Schuh, CME Office, Abbott Northwestern Hospital, 800 East 28th Street, Minneapolis, Minnesota 55407; (612) 863-5461.

4-5 **Update in Cardiovascular Diseases** Mayo Clinic, Mayo Medical School; Mayo Building, Rochester, Minnesota. CONTACT: Postgraduate Courses, Section of Continuing Education, Mayo Clinic/Mayo Foundation, 200 First Street SW, Rochester, Minnesota 55905.

5 **ENT for Primary Care Physicians** Mayo Clinic, Mayo Medical School; Radisson Hotel, Rochester, Minnesota. CONTACT: Postgraduate Courses, Section of Continuing Education, Mayo Clinic/Mayo Foundation, 200 First Street SW, Rochester, Minnesota 55905.

7-8 **Personal Computer Applications for Managing Occupational Health Programs and Hazard Communications** Midwest Center for Occupational Health and Safety; Earle Brown Center, St. Paul, Minnesota. CONTACT: Kathleen Fritz, Ramsey Foundation, 640 Jackson Street, St. Paul, Minnesota 55101; (612) 221-3992.

9-10 **Ethical Issues in Pediatric Organ Transplantation** University of Minnesota CME; Sheraton Midway, St. Paul, Minnesota. CONTACT: Pat Morandi, Office of CME, Box 202, UMHC, 420 Delaware Street SE, Minneapolis, Minnesota 55455; (612) 626-5525.

9-11 **Teaching the Medical Interview and Related Skills** Hennepin Faculty Associates; Hennepin County Medical Center, Minneapolis, Minnesota. CONTACT: Eugenia Kassar, HCMC, Hennepin Faculty Associates, 701 Park Avenue, Suite 4220, Minneapolis, Minnesota 55415; (612) 347-2075.

10 **E.T. Bell Pathology Symposium** University of Minnesota CME; Radisson University Hotel, Minneapolis, Minnesota. CONTACT: Pat Morandi, Office of CME, Box 202, UMHC, 420 Delaware Street SE, Minneapolis, Minnesota 55455; (612) 626-5525.

10 **Neurology Update** St. Paul-Ramsey Medical Center; Earle Brown Center, St. Paul, Minnesota. CONTACT: Bonnie Young, 640 Jackson Street, St. Paul, Minnesota 55101; (612) 221-3977.

10-11 **Vascular Laser Surgery: A "Hands-On" Training Program** Abbott Northwestern Hospital; Abbott Northwestern Hospital, Minneapolis, Minnesota. CONTACT: Tim Schuh, CME Office, 800 East 28th Street, Minneapolis, Minnesota 55407; (612) 863-5461.

11 **Fall Anatomic Pathology Seminar** Minnesota Society of Clinical Pathologists; Radisson University Hotel, Minneapolis, Minnesota. CONTACT: Carmela Brown, MSCP, 2221 University Avenue SE, Suite 400, Minneapolis, Minnesota 55414; (612) 378-1875.

13-17 **Team Management of Diabetes Mellitus** International Diabetes Center; International Diabetes Center, Park Nicollet Medical Foundation, Minneapolis, Minnesota. CONTACT: Cindy Poppitz, International Diabetes Center, 5000 West 39th Street, Minneapolis, Minnesota 55416; (612) 927-3393.

14-16 **The Physicians Office Laboratory** Mayo Medical Laboratories; Mayo Clinic, Rochester, Minnesota. CONTACT: Martha Carey, Mayo Medical Laboratories, 200 First Street SW, Rochester, Minnesota 55905; (800) 562-1787.

16-18 **Clinical Strategies in Primary Care Medicine** St. Paul-Ramsey Medical Center; Holiday Inn East, St. Paul, Minnesota. CONTACT: Bonnie Young, 640 Jackson Street, St. Paul, Minnesota 55101; (612) 221-3977.

17 **2nd Annual Clinical Management of Osteoporosis** Hennepin Faculty Associates; Hennepin County Medical Center, Minneapolis, Minnesota. CONTACT: Eugenia Kassar, Hennepin Faculty Associates, 701 Park Avenue, Suite 4220, Minneapolis, Minnesota 55415; (612) 347-2075.

Health One Medical Education

November 1

CPR for Physicians – 6:00 p.m.-8:00 p.m. – Metropolitan-Mount Sinai Medical Center/Phillips Campus

November 3 & 4

New Ulm Fall Seminar – Holiday Inn, New Ulm

November 6

"Rheumatology" – by Paul Waytz, M.D. – 6:00 p.m. – Health Central of Owatonna

November 15

Physician Renewal Seminar – 5:30 p.m. – United Hospital/Children's Hospital Conference Center

November 28

"Bilirubin in Babies" by Michael Coleman, M.D. – River Falls Area Hospital – 7:30 a.m.

For further information, contact Beth Murphy, CME Manager, Medical Affairs Division, Health One. (612) 574-7716.

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18 **Saturday Sports Medicine Symposium** Governor's Council on Physical Fitness and Sport; Lakeview Memorial Hospital, Stillwater, Minnesota. CONTACT: Robert Johnson, M.D., 5 West Lake Street, Minneapolis, Minnesota 55408; (612) 824-1647.

Nov 27-Dec 1 **Team Management of Diabetes Mellitus** International Diabetes Center; International Diabetes Center, Park Nicollet Medical Foundation, Minneapolis, Minnesota. CONTACT: Cindy Poppitz, 5000 West 39th Street, Minneapolis, Minnesota 55416; (612) 927-3393.

DECEMBER 1989

1 **Dual Disorders—Mental Illness and Mental Retardation** St. Paul-Ramsey Medical Center; Sheraton Midway Hotel, St. Paul, Minnesota. CONTACT: Bonnie Young, 640 Jackson Street, St. Paul, Minnesota 55101; (612) 221-3977.

1 **2nd Annual Musculoskeletal Conference** Hennepin Faculty Associates; Hennepin County Medical Center, Minneapolis, Minnesota. CONTACT: Eugenia Kassar, Hennepin Faculty Associates, 701 Park Avenue, Suite 4220, Minneapolis, Minnesota 55415; (612) 347-2075.

1-2 **General Laser Surgery: A "Hands-On" Training Program** Abbott Northwestern Hospital; Abbott Northwestern Hospital, Minneapolis, Minnesota. CONTACT: Tim Schuh, CME Office, Abbott Northwestern Hospital, 800 East 28th Street, Minneapolis, Minnesota 55407; (612) 863-5461.

7 **Epileptic Syndrome: Genetics, Diagnosis, Therapy** University of Minnesota Department of Neurology, University of Minnesota Medical School, American Epilepsy Society, and Epilepsy Foundation of America; Westin Hotel, Boston, Massachusetts. CONTACT: Office of CME, Box 202 UMHC, 420 Delaware Street SE, Minneapolis, Minnesota 55455; (612) 626-5525.

7-9 **Annual Cardiopulmonary Medicine Update** St. Paul-Ramsey Medical Center; Holiday Inn East, St. Paul, Minnesota. Bonnie Young, 640 Jackson Street, St. Paul, Minnesota 55101; (612) 221-3977.

16 **Saturday Sports Medicine Symposium** Governor's Council on Physical Fitness and Sport; Lakeview Memorial Hospital, Stillwater, Minnesota. CONTACT: Robert Johnson, M.D., 5 West Lake Street, Minneapolis, Minnesota 55408; (612) 824-1647.

JANUARY 1990

15-19 **Case Studies in Hematology and Surgical Pathology** Mayo Medical Laboratories, Breckenridge, Colorado. CONTACT: Martha Carey, Mayo Medical Laboratories, 200 First Street SW, Rochester, Minnesota 55905; (800) 562-1787.

26-27 **Current Concepts of Cardiology** Abbott Northwestern Hospital; Radisson Arrowwood Inn, Alexandria, Minnesota. CONTACT: Tim Schuh, CME Office, Abbott Northwestern Hospital, 800 East 28th Street, Minneapolis, Minnesota 55407; (612) 863-5461.

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Physician: GP/FP/EM seeks locations to cover on weekends as locum tenens. Board-certified. FP. Lic. Minn. Write: Box 35132, Minneapolis, Minnesota 55436. (R)

Wausau Medical Center is seeking BE/BC individuals in the following specialties: cardiology, dermatology, family practice, infectious disease, obstetrics/gynecology, pediatrics, and rheumatology. Modern clinic facility located across the street from modern, 300-bed hospital. Full partnership in three years. Easy access to lakes, woods, and mountains. Write (including CV) to: D.K. Aughenbaugh, M.D., Medical Director, Wausau Medical Center, 2727 Plaza Drive, Wausau, Wisconsin 54401. (R)

Family Physician: Dynamic 13-physician, 3-office, single-specialty practice in northwest Minneapolis suburbs seeking additional associate, BE/BC; OB available. Competitive salary, full benefits, reasonable call and hospital rounds schedule. Contact: Dr. Ken Kephart, Northwest Family Physicians; (612) 476-6776. (R)

Urgent: FP/GP physicians needed for practice opportunities within ARIZONA and throughout the United States. Excellent group and solo opportunities available. For additional information, call (602) 990-8080; or send CV in confidence to: Mitchell & Associates, Inc., PO Box 1804, Scottsdale, Arizona 85252. (*R)

Johnson & Falls Search Associates represents new practice opportunities locally and nationally. Working exclusively in the area of physician search, we are committed to expanding your professional options while meeting our clients' needs. There are no fees to candidates. For a thorough, confidential search, send CV or call: Liz Johnson or Pat Falls, Johnson & Falls Search Associates, 34 Forest Dale Road, Minneapolis, Minnesota 55410; (612) 922-0237. (R)

Mankato Clinic, Ltd. is seeking BE/BC physicians in the following specialties: allergy, dermatology, invasive cardiology, oncology, urology, ophthalmology, and general internal medicine. The Mankato Clinic is a 38-doctor multispecialty group practice in south-central Minnesota with a trade area population of 150,000. Guaranteed salary first year, incentive thereafter with full range of benefits and liberal time off. For more information, call Roger Greenwald, Administrator, or Dr. B.C. McGregor, (507) 625-1811 or write 501 Holly Lane, Mankato, Minnesota 56001. (R)

Family Physician needed to join group of five family physicians in St. Peter, Minnesota, population 9,000, located one hour south of Minneapolis. Contact: Curt Stolee, M.D., or D.A. Nygard, Administrator, St. Peter Clinic, Ltd., 622 Sunrise Drive, St. Peter, Minnesota 56082; (507) 931-2110. (R)

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Internist BE/BC: North Shore Internal Medicine, PC is seeking an energetic general internist to enjoy the benefits of a rapidly expanding practice. New office close to hospital. Michigan State Medical School Campus. Send resume to: 2420 First Avenue South, Escanaba, Michigan 49829; (906) 786-1563. (R)

BE/BC Psychiatrist, Orthopedic Surgeon: Excellent opportunity to join a well-established, progressive, 20-physician multispecialty group (10 FP, 4 IM, 2 OB/GYN, 1 Peds, 2 Surg, 1 Derm) located in an economically sound community of 20,000 (drawing area of 30,000), 65 miles south of Twin Cities. Full membership after one year. Competitive salary and fringe benefit package. Contact: Terry Tone, Clinic Manager, 134 Southview, Owatonna, Minnesota 55060; (507) 451-1120. (R)

Psychiatrist: An opening exists for a general psychiatrist with Hennepin Faculty Associates. Salary and benefits are generous. Requirements are board eligibility, Minnesota licensure, and potential for appointment in the Department of Psychiatry at the University of Minnesota. Position involves mainly inpatient and some outpatient care of acutely ill patients. This would be in association with over a dozen other full-time psychiatrists engaged in clinical care, teaching, research, and forensics. The University of Minnesota and Hennepin County Medical Center are equal opportunity educators and employers and specifically invite and encourage applications from women and minorities. Contact: William W. Jepson, M.D., Chief of Psychiatry, Hennepin County Medical Center, 701 Park Avenue South, Minneapolis, Minnesota 55415; (612) 347-5764. (R)

International Medicine and Family Practitione BE/BC to join a progressive 12-physician group practice in July 1990. Rural college town 30 miles from St. Paul, Minnesota, with community hospital. Contact: R.M. Hammer, M.D., River Falls, Wisconsin 54022; (715) 425-6701 or (612) 436-8809. (*R)

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Waseca, Minnesota: Family practice physician to join four family practitioners. Population 8,000. One hour south of Burnsville Center; lakes; industry. Salary negotiable. Clinic-adjacent hospital. Ample free time to enjoy family life. Contact: James W. Dey, M.D., or Ruth Hawker, 501 North State Street, Waseca, Minnesota 56093; (507) 835-3110. (R)

Immediate Opening: Family practice physician BC/BE to replace retiring physician and join our team of caring professionals providing primary care medical services in a well-established facility. Competitive salary plus incentive pay, choice location, and excellent benefits (malpractice insurance included). Interested candidates should send CV to: Robbinsdale Clinic, 3819 West Broadway, Minneapolis, Minnesota 55422; (612) 533-2534. (R)

FP Needed to join four in growing practice in city of 40,000. We provide full spectrum of FP services. Opportunity for full partnership after one year. Contact: Tony Giefer, M.D., 1695 LorRay Drive, North Mankato, Minnesota 56001; (507) 387-8231. 9-11/89

Family Practice—Hospital-Sponsored Clinic Opportunity: Dynamic, growth-oriented hospital in beautiful north-central Wisconsin is seeking two family physicians for a new clinic facility currently being constructed. The administrative burdens of medical practice will be minimized in this hospital-managed clinic. The hospital has committed to an income and benefit package that is significantly higher than similar opportunities. Package includes base income, incentive bonus, malpractice, disability, signing bonus, and student loan reduction/forgiveness program. All relocation costs will be borne by the hospital. Please contact: Dan McCormick, President, Allen McCormick, France Place, Suite 920, 3601 Minnesota Drive, Bloomington, Minnesota 55435; (612) 835-5123. (R)

Family Physician, BC/BE wanted to join three board-certified MDs in well-established, expanding group practice. Enjoy a progressive, rural city within easy reach of St. Cloud and Minneapolis. Contact: Dr. Jim Mohs, Melrose Clinic, 603 West Main Street, Melrose, Minnesota 56352; office: (612) 256-4228, home: (612) 256-3488. (R)

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Family Physicians: Well-established south suburban Minneapolis family practice group seeks associates part/full time to staff day clinic. Excellent call schedule, salary, and fringe benefits. Also seeking locum tenens to staff PT/FT Urgent Care Centers and/or day clinic. Contact: Administration, Family Physicians, P.A., (612) 435-4125 or send inquiries to Suite 100, 14050 Nicollet Avenue South, Burnsville, Minnesota 55337. (*9/89-R)

Family Physician needed to join group of three full-time physicians in rapidly growing community health center. Must do obstetrics. Competitive salary and benefits. Contact: Craig Redfern, D.O., or Beverley Hawkins, Ph.D., Model Cities Health Center, 430 North Dale Street, St. Paul, Minnesota 55103; (612) 222-6029. (R)

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Forest Lake Doctors' Clinic is seeking a BC/BE family physician, pediatrician, ob/gyn, and internist to join 10-physician multispecialty group. Located 25 miles north of Minneapolis-St. Paul, in progressive community, with excellent schools, many beautiful lakes, recreational activities, golf, fishing, boating, skiing. Local hospital directly across street. Contact: Dr. Harvey J. Frank or Dr. Doug Sill, 121 SE 11th Avenue, Forest Lake, Minnesota 55025; (612) 464-7100. 6-12/89

Training Position Available—Pain Fellowship: Position for PGY4 or PGY5 to participate in a one- or two-year program of clinical pain management and clinical or basic research, sponsored by the Department of Neurology, Hennepin County Medical Center, Minneapolis, Minnesota, beginning July 1, 1990. The program maintains an active outpatient practice and sees hospitalized patients on a referral basis from all departments. Opportunities to learn pharmacological management and other areas related to pain are available. Hennepin County Medical Center is an equal opportunity educator and employer and specifically invites and encourages applications from women and minorities. Applications and CV should be sent to: Miles J. Belgrade, M.D., Director, Hennepin Pain Center, Department of Neurology, Hennepin County Medical Center, 701 Park Avenue South, Minneapolis, Minnesota 55415. 3-11/89

Internist—BC/BE: Very busy, young, solo internist seeking ambitious associate. Family-oriented community on Lake Winnebago with a population of 40,000. No HMOs, PPOs, or subspecialists in internal medicine. Send CVs to: Michael Sergi, M.D., 14 North Main Street, Fond du Lac, Wisconsin 54935. 3-11/89

Family Practice, Aitkin, Minnesota: Family practice group of four young physicians seeking a fifth FP. Well-established and busy practice located in the beautiful lake region of north-central Minnesota. Guaranteed salary and benefits plus incentive plan. Call: Charles Schotzko, M.D., or Floyd Snodgrass, Business Manager, (218) 927-2157; Ripple River Medical Center, 25 4th Street SW, Aitkin, Minnesota 56431. 3-11/89

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to: R. G. Johnson, M.D., or T. R. Brill, Administrator, Itasca Clinic, 355 River Road, Grand Rapids, Minnesota 55744; (218) 326-6613. 3-11/89

Family Physician, Anesthesiologist, Psychiatrist, and ENT to join expanding medical staff and hospital. Comprehensive benefit package and competitive compensation. Contact: Donald Brezicka, Administrator, St. Olaf Hospital, Austin, Minnesota 55912; (507) 437-0405. 3-11/89

A Minneapolis, Non-HMO Internist/Endocrinologist seeks an association with a like-minded internist or a small group of related specialists for purpose of sharing overhead expenses and possible rotation of night and weekend coverage. Practice dedicated to high-quality, high-tech medicine. Send replies to: Minnesota Medicine (836), 2221 University Avenue SE, Suite 400, Minneapolis, Minnesota 55414. 4-12/89

Immediate Opportunity for Internist or Family Practitioner in north-suburban area. Three primary care physicians in well-established practice. Competitive base salary plus incentive pay. Location next to Brookdale Shopping Center. Excellent benefits, which include pension, profit sharing, and malpractice insurance. Contact: Duane Orn, M.D., Northport Medical Center, 5415 Brooklyn Boulevard, Brooklyn Center, Minnesota 55429; (612) 533-8666. (9/89-R)

Physician: Board certified/board eligible physician with broad general internal medicine background (BS/BC) with opportunity to pursue special interest in noninvasive cardiology, gastroenterology, endoscopy, pulmonary medicine, and geriatrics. Position offers a competitive salary, basic 40-hour week with limited on-call responsibility, malpractice coverage, 30 days' paid vacation, and other excellent fringe benefits in a JCAHO-accredited, 794-bed medical center having 72,000 outpatient visits per year, adequate staffing including physician extenders, and research opportunities. The city of St. Cloud is located in central Minnesota on the Mississippi River approximately 60 miles north of the Twin Cities of Minneapolis/St. Paul. Close enough to enjoy the cultural and sporting attributes of the metropolitan area, yet far enough away to independently boast of outstanding educational facilities, four-season recreational opportunities, and a high quality of family living for its residents. Equal opportunity employer. Write or call: Thomas Plombon, Personnel Service, VA Medical Center, 4801 8th Street North, St. Cloud, Minnesota 56303; (612) 255-6301. *2-11/89

BC or BE Family Physician needed full-time, ob included. Progressive community clinic. Competitive salary and benefits. Contact: Gordon Lester, M.D., West Side Health Center (La Clinica), 153 Concord Street, St. Paul, Minnesota 55107; (612) 222-1816. 2-11/89

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Family Practice, Internal Medicine, and General Surgery Practice Opportunities: Rural lake country community is seeking the above practitioners to join a busy 12-physician multispecialty group. Quality, comfortable living environment, multiple recreational activities, fine educational opportunities, and cultural activities abound. Salary and fringe benefits very liberal. Send curriculm vitae or inquiries to: Lake Region Clinic, PC, Attn: Joel Rotvold, PO Box 1100, Devils Lake, North Dakota 58301; or call collect at (701) 662-2157 for further information. 3-12/89

Georgia: Family practice, internal medicine, oncology, endocrinology, neurosurgery, neurology, general surgery, and orthopedic surgery. Group practice, solo, or urgent care settings available through the Charter hospital network located in Macon and serving all of middle Georgia. Your practice will be located 80 miles south of Atlanta, in a growing family-oriented community, where you can avoid traffic and enjoy a rewarding professional career. Please contact: Steve Wofford, (912) 741-6283, for a confidential consultation, or write: Charter Northside Hospital, PO Box 4627, Macon, Georgia 31208. 6-3/90

Locum Tenens physicians needed. Physicians and locations coordinating services. Write to: Margaret Carse, MED Professional Resource Search, PO Box 35215, Minneapolis, Minnesota 55435. (10/89-R)

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General Surgeon: Chisago Health Services is seeking a BC/BE general surgeon to join its 12 family practice and two internal medicine physicians. Outstanding opportunity to build a surgical practice in community located 35 miles northeast of Minneapolis/St. Paul. Excellent compensation package. Chisago Lakes area offers lakes, skiing, small-town atmosphere, and instant access to Twin Cities. Send inquiry with CV to: Scott Wordelman, President, Chisago Health Services, 11685 Lake Boulevard North, Chisago City, Minnesota 55013; (612) 257-8400. 1-11/89

Family Practice: Chisago Health Services is seeking a BC/BE family practitioner to join its group of 12 family practice and two internal medicine physicians. Located 35 miles northeast of Minneapolis/St. Paul, the Chisago Lakes area offers an excellent quality of life. Please send inquiry with CV to: Scott Wordelman, President, Chisago Health Services, 11685 Lake Boulevard North, Chisago City, Minnesota 55013; (612) 257-8400. 1-11/89

Internal Medicine: Chisago Health Services is seeking additional internal medicine physicians to join its 12 family practice and two internal medicine physicians. State-of-the-art diagnostics and critical care support at Chisago Lakes Hospital. Located 35 miles northeast of Minneapolis/St. Paul, the Chisago Lakes community offers an excellent quality of life. Please send inquiry with CV to: Scott Wordelman, President, Chisago Health Services, 11685 Lake Boulevard North, Chisago City, Minnesota 55013; (612) 257-8400. 1-11/89

Minneapolis Dermatologist Wanted: $100K first year with potential to double salary in rapidly growing affluent suburban practice. First-year association, with partnership second year. Full benefits. Looking for highly personable individual committed to delivering high-quality care despite a busy schedule. Part time also possible. Contact: Skin Physicians, P.A., 910 East 26th Street, Minneapolis, Minnesota 55404; (612) 863-4700. 1-11/89

Cardiologist: BC/BE, with good invasive skills desired for consultative practice in delightful Minnesota community of 50,000 with referral base of 250,000. Personable, energetic person desired as fifth cardiologist in 30-person internal medicine/internal medicine subspecialty clinic. Community has three colleges, excellent school system, and abundant recreational activities. Rare opportunity to practice high-quality invasive cardiology in beautiful environment with excellent financial compensation and lifestyle benefits. Please contact: Brad E. Currier, M.D., or Mark J. Murphy, Administrator, The St. Cloud Clinic of Internal Medicine, Ltd., 1200 Sixth Avenue North, St. Cloud, Minnesota 56303; (612) 252-5131. 1-11/89

Orthopedic Surgeon: A progressive 126-bed, two-hospital system is seeking an orthopedic surgeon to join an established practice in the Iron Mountain area of Michigan's Upper Peninsula. Must be BC/BE. Dickinson County Hospitals have a medical staff of 45 full-time physicians and a total service area population of over 45,000. Dr. Roberts will guarantee $200,000 plus malpractice insurance, office space, CME, vacation, and relocation expenses. Contact: John Schon, Administrator, Dickinson County Hospitals, 400 Woodward Avenue, Iron Mountain, Michigan 49801; (906) 779-4500. *2-12/89

Dermatologist, Psychiatrist, Allergist, Internal Medicine: A progressive 126-bed, two-hospital system is seeking the above specialists to establish practices in the Iron Mountain area of Michigan's Upper Peninsula. Must be BC/BE. Located 100 miles north of Green Bay, Wisconsin, Dickinson County Hospitals have a medical staff of 45 full-time physicians and a total service area population of over 45,000. Diagnostic capabilities include a CT scanner, CO_2 laser, and a fully staffed special diagnostic department. Contact: John Schon, Administrator, Dickinson County Hospitals, 400 Woodward Avenue, Iron Mountain, Michigan 49801; (906) 779-4500. *2-12/89

Minneapolis/St. Paul—Two General Radiologists: We need two radiologists who enjoy and excel in general radiology, including MRI, CT, US, and NM. Large, busy, and growing practice based in 800-bed tertiary care facility in Minneapolis/St. Paul. Extensive and varied outreach program in satellite clinics and smaller area hospitals. Excellent starting salary and benefits. Short track to full partnership. Please submit all inquiries with CV to: Dr. Philip Murray, Department of Radiology, Abbott Northwestern Hospital, 800 East 28th Street, Minneapolis, Minnesota 55407. 2-12/89

Family Practice Physician needed to join a 23-physician multispecialty primary care clinic located across from North Memorial Medical Center, a progressive and modern hospital in Robbinsdale, Minnesota. Very competitive salary and benefit package. Three contemporary offices located within seven miles of each other. There are currently 10 family practice physicians in this medical group. Please contact: Tom Harrer, Administrator, North Clinic, 3366 Oakdale Avenue North, Robbinsdale, Minnesota 55422; (612) 588-4625. 2-12/89

Cardiologist: BC/BE cardiologist needed to join an invasive cardiology group in Oklahoma City, Oklahoma. An excellent opportunity for practice. Reply with complete CV to: Cardiovascular Associates, 4300 St. Gregory, Oklahoma City, Oklahoma 73120. 2-12/89

Offices To Lease: Functionally designed offices available furnished or unfurnished. Walking distance to North Memorial Medical Center. Offices include laboratory, X-ray, and surgery rooms. For appointment to see offices, contact: Dr. Robert Rotenberg at 2512 West Broadway, Minneapolis, Minnesota 55411; (612) 529-9141. 2-12/89

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VASOTEC is available in 2.5-mg, 5-mg, 10-mg, and 20-mg tablet strengths.

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Warnings: *Angioedema:* Angioedema of the face, extremities, lips, tongue, glottis, and/or larynx has been reported in patients treated with ACE inhibitors, including VASOTEC. In such cases, VASOTEC should be promptly discontinued and the patient carefully observed until the swelling disappears. In instances where swelling has been confined to the face and lips, the condition has generally resolved without treatment, although antihistamines have been useful in relieving symptoms Angioedema associated with laryngeal edema may be fatal. **Where there is involvement of the tongue, glottis, or larynx likely to cause airway obstruction, appropriate therapy, e.g., subcutaneous epinephrine solution 1:1000 (0.3 mL to 0.5 mL), should be promptly administered.** (See ADVERSE REACTIONS.)

Hypotension: Excessive hypotension is rare in uncomplicated hypertensive patients treated with VASOTEC alone Heart failure patients given VASOTEC commonly have some reduction in blood pressure, especially with the first dose, but discontinuation of therapy for continuing symptomatic hypotension usually is not necessary when dosing instructions are followed; caution should be observed when initiating therapy. (See DOSAGE AND ADMINISTRATION.) Patients at risk for excessive hypotension, sometimes associated with oliguria and/or progressive azotemia and rarely with acute renal failure and/or death, include those with the following conditions or characteristics. heart failure, hyponatremia, high-dose diuretic therapy, recent intensive diuresis or increase in diuretic dose, renal dialysis, or severe volume and/or salt depletion of any etiology It may be advisable to eliminate the diuretic (except in heart failure patients), reduce the diuretic dose, or increase salt intake cautiously before initiating therapy with VASOTEC in patients at risk for excessive hypotension who are able to tolerate such adjustments (See PRECAUTIONS, *Drug Interactions* and ADVERSE REACTIONS.) In patients at risk for excessive hypotension, therapy should be started under very close medical supervision and such patients should be followed closely for the first two weeks of treatment and whenever the dose of enalapril and/or diuretic is increased Similar considerations may apply to patients with ischemic heart disease or cardiovascular disease in whom an excessive fall in blood pressure could result in a myocardial infarction or cerebrovascular accident.

If excessive hypotension occurs, the patient should be placed in supine position and, if necessary, receive an intravenous infusion of normal saline. A transient hypotensive response is not a contraindication to further doses of VASOTEC, which usually can be given without difficulty once the blood pressure has stabilized If symptomatic hypotension develops, a dose reduction or discontinuation of VASOTEC or concomitant diuretic may be necessary.

Neutropenia/Agranulocytosis: Another ACE inhibitor, captopril, has been shown to cause agranulocytosis and bone marrow depression, rarely in uncomplicated patients but more frequently in patients with renal impairment, especially if they also have a collagen vascular disease. Available data from clinical trials of enalapril are insufficient to show that enalapril does not cause agranulocytosis at similar rates. Foreign marketing experience has revealed several cases of neutropenia or agranulocytosis in which a causal relationship to enalapril cannot be excluded Periodic monitoring of white blood cell counts in patients with collagen vascular disease and renal disease should be considered

Precautions: *General: Impaired Renal Function:* As a consequence of inhibiting the renin-angiotensin-aldosterone system, changes in renal function may be anticipated in susceptible individuals. In patients with severe heart failure whose renal function may depend on the activity of the renin-angiotensin-aldosterone system, treatment with ACE inhibitors, including VASOTEC, may be associated with oliguria and/or progressive azotemia and rarely with acute renal failure and/or death.

In clinical studies in hypertensive patients with unilateral or bilateral renal artery stenosis, increases in blood urea nitrogen and serum creatinine were observed in 20% of patients. These increases were almost always reversible upon discontinuation of enalapril and/or diuretic therapy. In such patients, renal function should be monitored during the first few weeks of therapy

Some patients with hypertension or heart failure with no apparent preexisting renal vascular disease have developed increases in blood urea and serum creatinine, usually minor and transient, especially when VASOTEC has been given concomitantly with a diuretic. This is more likely to occur in patients with preexisting renal impairment. Dosage reduction and/or discontinuation of the diuretic and/or VASOTEC may be required

Evaluation of patients with hypertension or heart failure should always include assessment of renal function. (See DOSAGE AND ADMINISTRATION.)

Hyperkalemia: Elevated serum potassium (> 5.7 mEq/L) was observed in approximately 1% of hypertensive patients in clinical trials. In most cases these were isolated values which resolved despite continued therapy. Hyperkalemia was a cause of discontinuation of therapy in 0.28% of hypertensive patients. In clinical trials in heart failure, hyperkalemia was observed in 3 8% of patients, but was not a cause for discontinuation.

Risk factors for the development of hyperkalemia include renal insufficiency, diabetes mellitus, and the concomitant use of potassium-sparing diuretics, potassium supplements, and/or potassium-containing salt substitutes, which should be used cautiously, if at all, with VASOTEC. (See *Drug Interactions*.)

Surgery/Anesthesia: In patients undergoing major surgery or during anesthesia with agents that produce hypotension, enalapril may block angiotensin II formation secondary to compensatory renin release. If hypotension occurs and is considered to be due to this mechanism, it can be corrected by volume expansion.

Information for Patients:

Angioedema: Angioedema, including laryngeal edema, may occur especially following the first dose of enalapril. Patients should be so advised and told to report immediately any signs or symptoms suggesting angioedema (swelling of face, extremities, eyes, lips, tongue, difficulty in swallowing or breathing) and to take no more drug until they have consulted with the prescribing physician.

Hypotension: Patients should be cautioned to report lightheadedness especially during the first few days of therapy If actual syncope occurs, the patients should be told to discontinue the drug until they have consulted with the prescribing physician.

All patients should be cautioned that excessive perspiration and dehydration may lead to an excessive fall in blood pressure because of reduction in fluid volume. Other causes of volume depletion such as vomiting or diarrhea may also lead to a fall in blood pressure, patients should be advised to consult with the physician.

Hyperkalemia: Patients should be told not to use salt substitutes containing potassium without consulting their physician.

Neutropenia: Patients should be told to report promptly any indication of infection (e.g., sore throat, fever) which may be a sign of neutropenia

NOTE. As with many other drugs, certain advice to patients being treated with enalapril is warranted This information is intended to aid in the safe and effective use of this medication. It is not a disclosure of all possible adverse or intended effects

Drug Interactions:

Hypotension: Patients on Diuretic Therapy: Patients on diuretics and especially those in whom diuretic therapy was recently instituted may occasionally experience an excessive reduction of blood pressure after initiation of therapy with enalapril. The possibility of hypotensive effects with enalapril can be minimized by either discontinuing the diuretic or increasing the salt intake prior to initiation of treatment with enalapril. If it is necessary to continue the diuretic, provide close medical supervision after the initial dose for at least two hours and until blood pressure has stabilized for at least an additional hour. (See WARNINGS and DOSAGE AND ADMINISTRATION.)

Agents Causing Renin Release: The antihypertensive effect of VASOTEC is augmented by antihypertensive agents that cause renin release (e.g., diuretics).

Other Cardiovascular Agents: VASOTEC has been used concomitantly with beta-adrenergic-blocking agents, methyldopa, nitrates, calcium-blocking agents, hydralazine, prazosin, and digoxin without evidence of clinically significant adverse interactions.

Agents Increasing Serum Potassium: VASOTEC attenuates potassium loss caused by thiazide-type diuretics. Potassium-sparing diuretics (e.g., spironolactone, triamterene, or amiloride), potassium supplements, or potassium-containing salt substitutes may lead to significant increases in serum potassium. Therefore, if concomitant use of these agents is indicated because of demonstrated hypokalemia, they should be used with caution and with frequent monitoring of serum potassium. Potassium-sparing agents should generally not be used in patients with heart failure receiving VASOTEC

Lithium: A few cases of lithium toxicity have been reported in patients receiving concomitant VASOTEC and lithium and were reversible upon discontinuation of both drugs. Although a causal relationship has not been established, it is recommended that caution be exercised when lithium is used concomitantly with VASOTEC and serum lithium levels should be monitored frequently

Pregnancy—Category C: There was no fetotoxicity or teratogenicity in rats treated with up to 200 mg/kg/day of enalapril (333 times the maximum human dose). Fetotoxicity, expressed as a decrease in average fetal weight, occurred in rats given 1200 mg/kg/day of enalapril but did not occur when these animals were supplemented with saline. Enalapril was not teratogenic in rabbits. However, maternal and fetal toxicity occurred in some rabbits at doses of 1 mg/kg/day or more Saline supplementation prevented the maternal and fetal toxicity seen at doses of 3 and 10 mg/kg/day, but not at 30 mg/kg/day (50 times the maximum human dose).

Radioactivity was found to cross the placenta following administration of labeled enalapril to pregnant hamsters.

There are no adequate and well-controlled studies of enalapril in pregnant women. However, data are available that show enalapril crosses the human placenta Because the risk of fetal toxicity with the use of ACE inhibitors has not been clearly defined, VASOTEC® (Enalapril Maleate, MSD) should be used during pregnancy only if the potential benefit justifies the potential risk to the fetus

Postmarketing experience with all ACE inhibitors thus far suggests the following with regard to pregnancy outcome Inadvertent exposure limited to the first trimester of pregnancy has not been reported to affect fetal outcome adversely. Fetal exposure during the second and third trimesters of pregnancy has been associated with fetal and neonatal morbidity and mortality

When ACE inhibitors are used during the later stages of pregnancy, there have been reports of hypotension and decreased renal perfusion in the newborn. Oligohydramnios in the mother has also been reported, presumably representing decreased renal function in the fetus Infants exposed *in utero* to ACE inhibitors should be closely observed for hypotension, oliguria, and hyperkalemia. If oliguria occurs, attention should be directed toward support of blood pressure and renal perfusion with the administration of fluids and pressors as appropriate. Problems associated with prematurity such as patent ductus arteriosus have occurred in association with maternal use of ACE inhibitors, but it is not clear whether they are related to ACE inhibition, maternal hypertension, or the underlying prematurity.

Nursing Mothers: Milk in lactating rats contains radioactivity following administration of ^{14}C enalapril maleate It is not known whether this drug is secreted in human milk Because many drugs are secreted in human milk, caution should be exercised when VASOTEC is given to a nursing mother.

Pediatric Use: Safety and effectiveness in children have not been established

Adverse Reactions: VASOTEC has been evaluated for safety in more than 10,000 patients, including over 1000 patients treated for one year or more VASOTEC has been found to be generally well tolerated in controlled clinical trials involving 2987 patients

HYPERTENSION. The most frequent clinical adverse experiences in controlled trials were: headache (5.2%), dizziness (4.3%), and fatigue (3%).

Other adverse experiences occurring in greater than 1% of patients treated with VASOTEC in controlled clinical trials were: diarrhea (1 4%), nausea (1 4%), rash (1.4%), cough (1 3%), orthostatic effects (1.2%), and asthenia (1.1%)

HEART FAILURE The most frequent clinical adverse experiences in both controlled and uncontrolled trials were: dizziness (79%), hypotension (6 7%), orthostatic effects (2.2%), syncope (2 2%), cough (2.2%), chest pain (2 1%), and diarrhea (2 1%).

Other adverse experiences occurring in greater than 1% of patients treated with VASOTEC in both controlled and uncontrolled clinical trials were fatigue (1.8%), headache (1 8%), abdominal pain (1.6%), asthenia (1.6%), orthostatic hypotension (1.6%), vertigo (1 6%), angina pectoris (1.5%), nausea (1 3%), vomiting (1.3%), bronchitis (1.3%), dyspnea (1.3%), urinary tract infection (1.3%), rash (1.3%), and myocardial infarction (1.2%)

Other serious clinical adverse experiences occurring since the drug was marketed or adverse experiences occurring in 0.5% to 1% of patients with hypertension or heart failure in clinical trials in order of decreasing severity within each category

Cardiovascular. Cardiac arrest, myocardial infarction or cerebrovascular accident, possibly secondary to excessive hypotension in high-risk patients (see WARNINGS, *Hypotension*), cardiac arrest, pulmonary embolism and infarction; rhythm disturbances, atrial fibrillation, palpitation

Digestive: Ileus, pancreatitis, hepatitis or cholestatic jaundice, melena, anorexia, dyspepsia, constipation, glossitis.

Nervous/Psychiatric: Depression, confusion, ataxia, somnolence, insomnia, nervousness, paresthesia.

Urogenital: Renal failure, oliguria, renal dysfunction (see PRECAUTIONS and DOSAGE AND ADMINISTRATION).

Respiratory: Bronchospasm, rhinorrhea, asthma, upper respiratory infection.

Skin. Herpes zoster, pruritus, alopecia, flushing, photosensitivity.

Other: Vasculitis, muscle cramps, hyperhidrosis, impotence, blurred vision, taste alteration, tinnitus.

A symptom complex has been reported which may include fever, myalgia, and arthralgia, an elevated erythrocyte sedimentation rate may be present. Rash or other dermatologic manifestations may occur. These symptoms have disappeared after discontinuation of therapy

Angioedema Angioedema has been reported in patients receiving VASOTEC (0 2%). Angioedema associated with laryngeal edema may be fatal If angioedema of the face, extremities, lips, tongue, glottis, and/or larynx occurs, treatment with VASOTEC should be discontinued and appropriate therapy instituted immediately. (See WARNINGS.)

Hypotension: In the hypertensive patients, hypotension occurred in 0 9% and syncope occurred in 0.5% of patients following the initial dose or during extended therapy Hypotension or syncope was a cause for discontinuation of therapy in 0.1% of hypertensive patients. In heart failure patients, hypotension occurred in 6 7% and syncope occurred in 2 2% of patients Hypotension or syncope was a cause for discontinuation of therapy in 1.9% of patients with heart failure. (See WARNINGS.)

Clinical Laboratory Test Findings:

Serum Electrolytes: Hyperkalemia (see PRECAUTIONS), hyponatremia

Creatinine, Blood Urea Nitrogen: In controlled clinical trials, minor increases in blood urea nitrogen and serum creatinine, reversible upon discontinuation of therapy, were observed in about 0.2% of patients with essential hypertension treated with VASOTEC alone. Increases are more likely to occur in patients receiving concomitant diuretics or in patients with renal artery stenosis. (See PRECAUTIONS.) In patients with heart failure who were also receiving diuretics with or without digitalis, increases in blood urea nitrogen or serum creatinine, usually reversible upon discontinuation of VASOTEC and/or other concomitant diuretic therapy, were observed in about 11% of patients. Increases in blood urea nitrogen or creatinine were a cause for discontinuation in 1 2% of patients

Hemoglobin and Hematocrit: Small decreases in hemoglobin and hematocrit (mean decreases of approximately 0.3 g % and 1.0 vol %, respectively) occur frequently in either hypertension or heart failure patients treated with VASOTEC but are rarely of clinical importance unless another cause of anemia coexists. In clinical trials, less than 0 1% of patients discontinued therapy due to anemia

Other (Causal Relationship Unknown): In marketing experience, rare cases of neutropenia, thrombocytopenia, and bone marrow depression have been reported

Liver Function Tests: Elevations of liver enzymes and/or serum bilirubin have occurred.

Dosage and Administration: *Hypertension:* In patients who are currently being treated with a diuretic, symptomatic hypotension occasionally may occur following the initial dose of VASOTEC. The diuretic should, if possible, be discontinued for two to three days before beginning therapy with VASOTEC to reduce the likelihood of hypotension. (See WARNINGS.) If the patient's blood pressure is not controlled with VASOTEC alone, diuretic therapy may be resumed.

If the diuretic cannot be discontinued, an initial dose of 2 5 mg should be used under medical supervision for at least two hours and until blood pressure has stabilized for at least an additional hour. (See WARNINGS and PRECAUTIONS, *Drug Interactions*.)

The recommended initial dose in patients not on diuretics is 5 mg once a day Dosage should be adjusted according to blood pressure response. The usual dosage range is 10 to 40 mg per day administered in a single dose or in two divided doses. In some patients treated once daily, the antihypertensive effect may diminish toward the end of the dosing interval In such patients, an increase in dosage or twice-daily administration should be considered. If blood pressure is not controlled with VASOTEC alone, a diuretic may be added.

Concomitant administration of VASOTEC with potassium supplements, potassium salt substitutes, or potassium-sparing diuretics may lead to increases of serum potassium (see PRECAUTIONS)

Dosage Adjustment in Hypertensive Patients with Renal Impairment: The usual dose of enalapril is recommended for patients with a creatinine clearance >30 mL/min (serum creatinine of up to approximately 3 mg/dL). For patients with creatinine clearance ≤30 mL/min (serum creatinine ≥3 mg/dL), the first dose is 2.5 mg once daily The dosage may be titrated upward until blood pressure is controlled or to a maximum of 40 mg daily

Heart Failure: VASOTEC is indicated as adjunctive therapy with diuretics and digitalis. The recommended starting dose is 2.5 mg once or twice daily After the initial dose of VASOTEC, the patient should be observed under medical supervision for at least two hours and until blood pressure has stabilized for at least an additional hour. (See WARNINGS and PRECAUTIONS, *Drug Interactions*.) If possible, the dose of the diuretic should be reduced, which may diminish the likelihood of hypotension. The appearance of hypotension after the initial dose of VASOTEC does not preclude subsequent careful dose titration with the drug, following effective management of the hypotension. The usual therapeutic dosing range for the treatment of heart failure is 5 to 20 mg daily given in two divided doses. The maximum daily dose is 40 mg Once-daily dosing has been effective in a controlled study, but nearly all patients in this study were given 40 mg, the maximum recommended daily dose, and there has been much more experience with twice-daily dosing In addition, in a placebo-controlled study which demonstrated reduced mortality in patients with severe heart failure (NYHA Class IV), patients were treated with 2.5 to 40 mg per day of VASOTEC, almost always administered in two divided doses. (See CLINICAL PHARMACOLOGY, *Pharmacodynamics and Clinical Effects*.) Dosage may be adjusted depending upon clinical or hemodynamic response. (See WARNINGS.)

Dosage Adjustment in Heart Failure Patients with Renal Impairment or Hyponatremia. In heart failure patients with hyponatremia (serum sodium <130 mEq/L) or with serum creatinine >1.6 mg/dL, therapy should be initiated at 2.5 mg daily under close medical supervision. (See DOSAGE AND ADMINISTRATION, *Heart Failure*, WARNINGS, and PRECAUTIONS, *Drug Interactions*.) The dose may be increased to 2.5 mg b.i.d., then 5 mg b.i.d. and higher as needed, usually at intervals of four days or more, if at the time of dosage adjustment there is not excessive hypotension or significant deterioration of renal function. The maximum daily dose is 40 mg.

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A JOURNAL OF CLINICAL AND HEALTH AFFAIRS

MINNESOTA MEDICINE

DECEMBER 1989

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DECEMBER 1989
MINNESOTA MEDICINE
PROMOTING HEALTH IN THE HEARTLAND

Cover Illustration

COMMUNITY HEALTH A physician can do the most good in one-on-one contact with the patient, right? Not necessarily. This special issue of *Minnesota Medicine* draws attention to diagnosing and healing entire communities—spreading the gospel of healthier living.

This month's cover and feature story woodcut artwork is by Nora Wildgen of Minneapolis.

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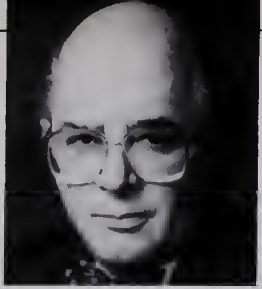


RICHARD L. REECE, M.D.

Leading the Charge to Healthy Habits

Herein you will find interviews with two physicians. These two doctors—Henry Blackburn and Stuart Hanson—have dedicated themselves to promoting the health of the public. As you read these two conversations, you will become aware that their efforts are paying off in big ways.

In Henry Blackburn's case, the payoff has come in the form of widespread public behavioral changes. In the last 25 years, the American public's consumption of tobacco, milk and cream, butter, eggs, and animal fats and oils has decreased dramatically. These declines have been accompanied by a 40 percent decrease in deaths due to coronary disease and a 55 percent decrease in stroke deaths. In those same 25 years, Americans' longevity has gone up by five years or so—a significant increase for the U.S. in any 25-year span.

In part, this lustrous 25-year track record stems from two announcements in 1964 by the U.S. Public Health Service and by the American Heart Association that tobacco and cholesterol are bad for our health. But credit must also go to international epidemiological pioneers like Ancel Keys and Henry Blackburn. Keys, Blackburn, and other investigators proved beyond dispute that the way people in different countries behave, i.e., what they eat and drink and how much they exercise, contributes to how early they die and of what diseases.

Blackburn and others showed if you can change mass behavior in a given culture, you can change disease patterns and premature death rates. This knowledge has spread to the public. Now all around us we are witnessing movements toward more exercise, better nutrition, and less smoking and alcohol consumption.

In the case of Stuart Hanson, the payoff has come in the form of the success of his personal leadership to create a smoke-free environment in Minnesota health facilities, schools, and public places. This year most schools will become smoke-free, and by January 1, 1990, all Minnesota hospitals will become smoke-free. Dr. Hanson has also seen Minnesota pass its Clean Indoor Air Act and Northwest Airlines forbid smoking on domestic flights. Now these local efforts are spreading nationally.

Why Aren't More Physicians Active in Promoting Health?

Given the successes of Drs. Blackburn and Hanson within their spheres of influence, and the recent virtuoso performance of former Surgeon General Dr. C. Everett Koop in alerting Americans to destructive health habits, why aren't more doctors active in promoting healthful behavior? It's a legitimate question. After all, nearly half of all premature deaths can be traced to unhealthy behaviors. I suspect one could list many reasons physicians aren't more active, but here are a few that come to mind:

► The payment system: Simply put, physicians are paid to treat disease, not to advise about prevention. Most physicians, I'm sure, advise patients about the health consequences of smoking, drinking, and overeating, but there is no economic reward for doing so.

► The medical model: The medical model for treating disease rests on the often episodic relationship between the individual physician and patient. While it may be effective on a smaller scale, this model doesn't reach the populace as a whole.

► Short-term versus long-term payoff: Modifying the way a community acts—what it eats, what it drinks, and how it exercises—requires leaders from multiple sectors of the community and demands before-and-after measurements of intervention strategies by statistical techniques over the long term. Initiating these interventions, carrying them out, and measuring them over a long time span are simply beyond the scope, interest, and capabilities of most practicing physicians.

► Incentives and prestige for high-tech versus high-touch medicine: For physicians, the greatest psychological rewards from peers and the economic rewards from society have always come from excelling at the cutting edge of science and technology. Whereas medical jobs in the public health sector—which often involve applied common sense and much time spent with those outside of medicine in other disciplines—have been less well rewarded.

We hope this special issue of *Minnesota Medicine* inspires a new appreciation of the importance of health promotion and the power of behavior in improving the public's health. This power is greatly enhanced if physicians serve as role models in leading the charge toward healthy habits. ■

On Changing the Mass Consciousness

REECE: *Dr. Blackburn, you've had an illustrious career in epidemiology. You've concentrated on studying lifestyle and modifiable risk factors. You've carried out your work at the University of Minnesota, and you've achieved an international reputation. Much of this lifework started with your relationship with Dr. Ancel Keys, himself a pioneering epidemiologist. Could you tell us about Dr. Keys, and how you and he interacted?*

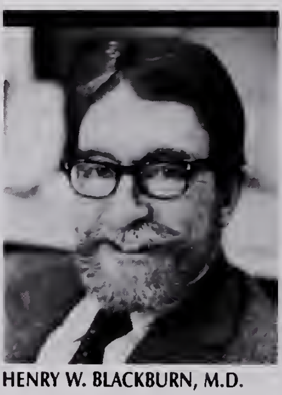
BLACKBURN: Dr. Reuben Berman, a long-time leader in our medical community, invited me as a young resident in 1953 to meet Ancel. Ancel had just returned from a foray to eastern Finland, where he had gone when he heard that half the men in one of the small-town hospitals had had heart attacks. I pinned Ancel down on that statistic. He laughed and said it was statistically true: There were six men in the infirmary; three of them had heart attacks, two had pneumonia, and one had been mauled by a Russian bear!

That's where I learned about misleading statistics. Still, it was fascinating. Ancel, a physiologist, was going around the world with eminent Boston cardiologist Paul Dudley White, gathering qualitative observations that people in some parts of the world had a lot of heart attacks, while people in other parts had none.

I became involved in counting the real incidence of coronary disease around the globe. The day I finished my medical residency, Ancel offered me a job but said he could pay me only $4,000. So I scrambled to make a living for a few years in private practice and in industry part time. But I got hooked on epidemiology and its prospects. I had the mandate from Keys to dig into quantitative comparisons of heart disease rates around the world and to look at the characteristics of men and whole societies that were associated with high and low risk.

With Keys and other colleagues,

Blackburn *to page 729*



HENRY W. BLACKBURN, M.D.

If I were to invent a character whose mission was to improve people's health, my character would enjoy consorting with international health authorities; he would have a talent for persuading people of various disciplines to work together for the common goal of good health; and he would be dedicated to the idea that the world is a global village with one people susceptible to universal influences—a bad environment and bad habits—that undermine health.

And my character would believe that if you use a common-sense approach, people will make the necessary changes to improve their health. But as a scientist, he would supplement common sense with systematic design and measurements to prove common-sense changes in behavior make a difference. And, being wise and patient, he would know that any plan to measure, intervene, and improve people's health would take time, maybe even two or three decades.

As luck would have it, I don't have to invent my character. He exists in the form and substance of Henry Blackburn, M.D., professor and director of the Division of Epidemiology of the School of Public Health and professor of medicine at the University of Minnesota Medical School.

And Dr. Blackburn is lucky, too. He has lived long enough to see his work translated into results. Who would have foreseen 30 years ago, when he and his colleagues started their work, what is now happening in American society? Who would have believed that the death rate from coronary disease among Americans would drop 40 percent? That the rate of smoking among adults would decline 30 percent? That as a nation we would be concerned about fitness and a healthy lifestyle?

Dr. Blackburn might have believed in this transformation of America into a health-conscious, health-active nation, but there were precious few others.

We Minnesotans are fortunate, too. As principal investigator of the Minnesota Heart Health Program, Dr. Blackburn has conducted much of his research and health promotion in our communities. The state of people's collective health is improving, thanks to people like Henry Blackburn who are trying to translate good science into good health.

On Not Blowing Smoke

REECE: *Dr. Hanson, you've been a practicing internist and pulmonologist at the Park Nicollet Medical Center for 19 years. In addition, you're chief executive officer of the Park Nicollet Medical Foundation, a delegate to the American Medical Association, and the upcoming president of the Hennepin County Medical Society. Finally, you've been an activist in the anti-smoking movement—in promoting a smoke-free environment in institutions around the state and in society at large. You were the first president of the Coalition for a Smoke-Free Society 2000, and you are the current president and chair of A Smoke-Free Generation-Minnesota, Inc., a statewide initiative targeting children and schools in the elimination of smoking. Given this varied background, what do you see as the major issues facing medicine as we enter the last 10 years of this century?*

A. STUART HANSON, M.D.

To some, smoking is a comical eccentricity. I remember an old Bob Newhart routine. The scene is 300 years ago. Bob has Sir Walter Raleigh on the overseas phone, and Bob is saying something like this: "Hey, it's crazy, Walt. He says he's found this weed. You dry it, set it on fire, inhale it, and blow smoke out your mouth and nose. If you don't like setting fires and blowing smoke, you can stick it up your nose."

But Dr. A. Stuart Hanson wouldn't be amused. To Dr. Hanson, an internist at the Park Nicollet Medical Center in St. Louis Park, smoking is deadly serious. As a pulmonologist, he knows 90 percent of emphysema and lung cancer result directly from smoking. Besides, he isn't a man to blow smoke. He doesn't smoke, believes others shouldn't smoke, has been a driving force in banning smoking in health facilities and public places, and has committed himself to the goal of reducing smoking to 5 percent of the population by the year 2000.

Dr. Hanson is a lean, ramrod-straight, and clear-eyed true believer in the virtue and value of preventing disease. But he is a practical idealist. When I asked him why he was walking so rigidly erect, he said he was recovering from recent disc surgery. His back problems, he ruefully confessed, could be traced to overzealous running and cavorting on the basketball court. As a practical man, he is willing to forego strenuous exercise to protect his back.

But there is one thing he isn't willing to forego—his public campaign to reduce disease- or death-producing behaviors. These behaviors include those lifestyle disorders that produce automobile accidents, coronary disease, lung cancer, emphysema, colon cancer, AIDS and other sexually transmitted diseases, and multiple disorders from hard drug use.

Part of this campaign includes promoting a smoke-free environment in health facilities and public places; part of it includes lobbying for prohibiting advertising of drugs and alcohol; and part of it would surely include visible campaigning by physicians for better health habits by the public. Through these various approaches, he can conceive of and believes in a society where less than 5 percent of citizens abuse their health with drugs, alcohol, and cigarettes.

HANSON: First of all, it's a very exciting time to be a physician because of the tremendous expansion of our knowledge about health care issues and what we can do about them. We're gaining the capacity to change the course of nature. We're gaining the knowledge to prevent diseases that have plagued people for ages. It's an exciting time because we physicians have some responsibility for applying this new knowledge and expanding its capacity.

REECE: *This "expansion" is being driven by demographics and technology. One of the problems is balancing the two.*

HANSON: It's hard, but not impossible, to slow down the aging population. I know. I'm one of the aging population myself. Prospects for a longer and a better life for people have been developing over the last decade and will continue in the decade to come. Our population is getting older, but our average life expectancy is going up. And those who are moving into the older age groups have more

continued

discretionary money to spend on their health and well-being. We are finding that these people are not poor, and they're not uneducated. They're rather sophisticated purchasers of service, and one of the services they're going to purchase in the future is health care. An aging population with more money will drive the cost of health care up, maybe at a rate higher than the rate of inflation, and I don't think that's a bad thing.

Accountability to Our Patients

REECE: *Physicians are, in part, responsible for the cost of this vast system, for bundling the services, for ordering the tests, and for admitting patients. How will physicians in the '90s show that they are responsible agents to the public?*

HANSON: As physicians, we have pledged to provide the best care we can for our patients, so we can be blamed for using services, or we can be praised. Our challenge is to develop methods of accountability that will begin to turn public opinion around. The public must get a sharper sense of the value of the benefits we offer.

We can be more efficient. There are ways we can do things that will give better outcomes and that may be less expensive. We must demonstrate that the benefits we offer individuals and society are worth the cost. It is absolutely essential for the medical profession to lead this movement for more accountability. We must overcome the negative images that we have created in the past because the cost of our services has risen so fast.

REECE: *How can we clearly indicate to the public and to those who pay for those services that we are accountable?*

HANSON: We have to participate in developing accountability systems that the payers and the public accept as valid. That's a difficult challenge. If we build a data system ourselves, there's skepticism on the part of the payer or on the part of the public. If, on the other hand, we are a participant but not the controller of a health data system that points toward accountability, we have a better chance of showing the value of our contributions to the health care of this country.

REECE: *Could you give me a specific example of an accountability system?*

HANSON: The Minnesota Clinical Comparison and Assessment Project has the potential to do that. The three-year MCCAP project is designed to provide Minnesota physicians with practice guidelines and data to improve the quality of medical care in the state [see "Health Care Quality: How We Measure, Define, and Refine It," *Minnesota Medicine*, July 1989]. There is strong support on the part of hospitals, physicians, and nurses to carry out this project. With the providers' broad support, we can begin to develop a system that will meet the needs of the payers and the public.

A Tobacco-free Society

REECE: *Three components for a long and happy life are good genes, good health care, and good habits. We can't control the genes, but we can be accountable for the cost of care, as you've indicated, and we can take some responsibility for promoting good health habits. You've been active in promoting good health habits. You've said that the human body is built to last a hundred years if only we behave correctly. One means of behaving correctly is not to smoke. How did you become involved in the nonsmoking movement, and what has that meant to you?*

HANSON: In my specialty, pulmonary medicine, 90 percent of the emphysema and lung cancer I treat arise from smoking. I decided that I would stress prevention rather than better treatment. I've always been downstream catching all the people who had diseases that could have been prevented upstream if prevention had been initiated early enough. My volunteer work has been focused on prevention of the diseases from which I make a living.

We now know that roughly half of our health care dollars are spent on lifestyle-related diseases, most of which are preventable. We talk about accidents, but accidents are not accidents, they are behavioral problems, in large part. We talk about diseases like coronary artery disease or cancer, but a third of our cancer is totally preventable by doing one thing—stopping all smoking. Violence and drug abuse and misuse in our society also are preventable problems.

"My volunteer work has been focused on prevention of the diseases from which I make a living."

It is important for physicians to work in prevention with other interested people and organizations. We must try to improve the lifestyle behaviors that are built into our culture. We must try to alter these behavior patterns in such a way that they will actually promote better health for our population. There are great opportunities to do that. Minnesota is a fertile ground because we have had a long history of both private and public health promotion efforts. We are leaders in promoting better health behaviors. We've certainly shown that in the smoke-free movement and in our treatment of chemical and alcohol dependency, and we have the opportunity to do so in other areas of health promotion. The governor has appointed a commission on health promotion, and I think the prospects of a major public health promotion initiative are good.

REECE: *What is the current status of the smoke-free environment in Minnesota? I understand that all hospitals in the state will become smoke-free this year.*

HANSON: You and I are sitting now at Methodist Hospital, which is totally smoke-free in its buildings and grounds. The same holds true for Park Nicollet Medical Center and all of its facilities in the Twin

Cities. The smoke-free models developed by Park Nicollet Medical Center in the mid-1980s have been used across the state in other health care organizations, medical groups, and hospitals. The Minnesota Legislature last year passed a law requiring that all hospitals and doctors' offices be smoke-free by January 1, 1990. That hasn't happened anywhere else in the country. We're a national leader in the health care industry. The whole Minnesota health system is going smoke-free. A similar process has been going on in the school system. Over 90 percent of the schools in the state will be smoke-free beginning this school year.

REECE: *Last year Dr. C. Everett Koop visited Minnesota because of our smoke-free movement. How important was he as a national figure in promoting a mass consciousness of the dangers of smoking?*

HANSON: Dr. Koop is at least as effective as Luther Terry, who published the first surgeon general's report on smoking in 1964. Dr. Koop came forward as a surgeon general with some taint on his plate as he took office because of his perceived rigid, conservative views. But before he left office, he became the most colorful and effective surgeon general our country has had in my lifetime. He brought to this country's attention not only the issue of smoking but the issues of transmittable infectious diseases, particularly AIDS. He addressed issues in a forthright, scientific manner and disregarded the politics. He became what he calls a person of suasion. He's been very effective in this country. He's a tribute to our medical profession and has fulfilled the ideals of a physician who not only is soundly based in science but who bases his lifework on dedication to the patient. He uses science to improve the patient's health, but he also takes an active role in public and community affairs. He has used his position as a physician as leverage to change the way this country handles public health issues.

"A third of our cancer is totally preventable by doing one thing—stopping all smoking."

The Power of Nicotine Addiction

REECE: *What are the most effective means of promoting non-smoking, outside of public suasion?*

HANSON: For an individual, the first thing to do is to set a quit date and commit yourself to a lifetime goal of abstinence. Smoking is an addiction problem. Nicotine addiction is stronger than almost any other addiction we know about. It's certainly stronger than cocaine, heroin, Valium, and alcohol. Still, we have not addressed smoking addiction as strongly or as formally as we have other addiction problems. But it is possible for people to beat addiction by setting a goal of lifelong abstinence, setting a quit date, and then finding a support group. To build a support group, I ask smokers to tell 10 friends and relatives about their quit date and their lifelong goals. I also recommend anything else the individual is interested in doing: cessation classes, self-help workbooks, nicotine replacement, even hypnosis and acupuncture.

What society can do is not condone the lighting and burning of tobacco products in public places—indoors and outdoors. By doing this, we change community attitudes toward the use of tobacco products. We are saying it is *not OK* to use tobacco products in this environment. We don't condone it for you as an individual because it's bad for your health; and we also don't condone your right to burn a tobacco product because it affects the air those around you breathe, and it severely affects their health.

In the 1960s and '70s we learned what smoke did to the individual smoker; in the 1980s we learned how secondhand smoke affects the non-smoker, and the effects are very significant, particularly among young children.

The movement we started in Minnesota for clean indoor air is very strong and has the prospect of being carried out across the country.

REECE: *How do you account for the rising nicotine addiction among teen-age girls? What can we do about it?*

HANSON: The rate is not actually increasing, but it is not going down, either, and that's what worries us. We find that girls now smoke more than boys, although their rates are not higher than they've been in the past. We find smoking among boys is dropping at a surprising rate. The reason for these differences between girls and boys is not clear. The tobacco production, manufacturing, and sales industry has clearly targeted women and minority groups. Teenage women are potential cigarette smokers, and advertisers know how to appeal to them. They know how to segment their market, how to target their promotion, how to get these women to buy, and how to get them hooked on nicotine. Once advertisers have got them hooked, women have a more difficult time stopping than men. That may be linked to genetics, or it may be related to behavior. We simply don't know, and nobody has any really good ideas. I would say to women: It's harder for you to stop, so don't start.

"Nicotine addiction is stronger than almost any other addiction we know about. It's certainly stronger than cocaine, heroin, Valium, and alcohol."

REECE: *Are lung cancer rates still climbing among women and dropping among men?*

HANSON: Yes. These rates will continue to climb even if all women quit smoking today. In the

United States, the lung cancer death rate for women will continue to climb for another two decades. Death from cancer of the lung is now the most frequent cause of cancer death in women. It has surpassed the breast cancer death rate. Lung cancer has been the most frequent cause of cancer death in men for many years. It is a little too early to say the lung cancer death rate in men is in decline, but it certainly looks as if it is topping out about 20 years after the smoking rate in men began to decline.

As HCMS's New President

REECE: *You are about to assume the mantle of the Hennepin County Medical Society presidency. Hennepin County is the most populous county in Minnesota and is also the county in which medicine has been in the most turmoil for the last 10 years. What do you hope to accomplish during your presidency?*

HANSON: In a one-year presidency of this sort, an individual cannot hope to have large accomplishments. I hope I can contribute to physicians' sense that what they're doing is right and good, and that medicine is a good profession to be in. I believe it is an exciting time to be a physician and that we have to look past some of our daily stresses and strains to the larger picture.

I also hope to contribute to the development of better accountability. That process will take at least five, probably 10, years to evolve, but I hope to be part of it.

Finally, I would like to continue to raise physicians' awareness that we have a responsibility in health promotion, even though our remuneration is more directly related to disease treatment. Our efforts in health promotion can benefit our patients and society as a whole. We have a responsibility and an opportunity to have a significant impact. ■

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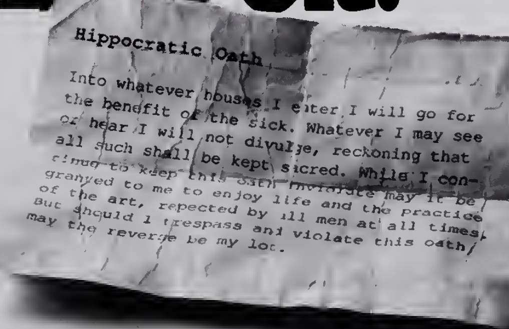

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The Community as the Patient

William D. Manahan, M.D.

Community-oriented preventive care measures achieved in the 19th and 20th centuries have changed the face of public health by helping to improve sanitation, control tuberculosis, and lower the incidence of small pox, polio, and other diseases. These are no longer major health problems in the United States today because they were recognized and treated as community health problems.

Since the middle of this century, most communities have been increasingly faced with a new set of health problems—drug abuse, eating disorders, and such long-term degenerative diseases as coronary artery disease, hypertension, cancer, arthritis, osteoporosis, and obesity. It is time for us to move beyond treating these diseases only as the problems of individual patients and adopt the community-wide intervention methods used so successfully in earlier years. In fact, the case may be made that community-oriented care today is at least as important as it was in the treatment of infectious diseases. Physicians, particularly primary care providers, can, and should, be leaders in improving their communities' collective health. With input from local public health and human service agencies, schools, churches, and businesses, practitioners can again begin to assess diagnostically the diseases and problems of their communities.

Community-oriented primary care (COPC) is the provision of personal clinical services to a defined community, coupled with systematic efforts to identify and address the major health problems of that community. The COPC concept was first described by Sidney Kark in 1981.[1,2] Since then, interest in COPC has generated two major publications devoted to the topic. In 1984, the Institute of Medicine published a two-volume report,[3] and in 1987, Paul Nutting edited *COPC: From Principle to Practice,* a comprehensive review of all COPC activities and research from the 1950s to the present.[4]

Although physicians usually think COPC is a good idea, many believe they don't have the time for it. However, involvement in COPC does not have to be time consuming or difficult. Primary care medical practices are already armed with a vast amount of information about the health status of their patients. As recommended by Mullan, the private practitioner can work with community organizations in two primary ways.[5]

First, the physician can make better use of community resources. With alcohol dependency, for example, those resources might be Alcoholics Anonymous, Alanon, chemical dependency counselors, and drug rehabilitation programs. Second, the physician can become involved in community health education and disease prevention activities. Again using alcohol dependency as an example, this might mean making a call to the local school district to see what is being taught about alcohol use and abuse in the schools. It may mean talking to city council members or the mayor about making public transportation available when the bars close. It may mean talking to the police about closer monitoring of drunk driving or how they handle teen-age alcohol problems. It could even mean initiating a community task force on alcohol- or drug-related problems. The list is endless of what one small practice can do to initiate community solutions.

A Private Practice Model of COPC

I have discovered amazing similarities in my experiences with a third-world medical practice from 1967 to 1970 and my current traditional family practice in Mankato, Minnesota. In both situations, I found myself spending much of each day seeing the same patients for basically the same problems. While I was working for the Peace Corps in Malaysia and Ghana, those problems were tuberculosis, malaria, parasites, and other infectious diseases. In the United States, the problems have been primarily long-term degenerative diseases—hypertension, heart disease, diabetes, cancer.

Because preventive community measures have worked so well for certain infectious diseases over the past 40 years, it seemed reasonable to assume the same might hold true for many of our present recurrent problems. So, in 1982, I began incorporating COPC concepts into my family practice in Mankato.

Community surveys already had identified hypertension as a major community health problem, and my practice population had more than 100 patients with hypertension. American Red Cross volunteer screening clinics of 11,000 Mankato-area adults showed an 18 percent incidence of blood pressure greater than 160/95 in our community in 1977.[6] By 1981, the incidence of high blood pressure had dropped to 14 percent but was still a significant community problem.

To address the problem in my own patient population, I made the following modifications to my family practice:

► I continued our usual acute-care medical practice and added three exam rooms to accommodate two counselors, a biofeedback therapist, a dietitian, and an exercise instructor. (All worked part time and were paid 40 percent to 50 percent of their collections.) This made patient compliance in stress reduction, dietary manipulation, and exercise education much easier.

► I hired a nurse practitioner who did extensive health education with many of the hypertensive patients.

► I set up an information center in the waiting room. This area contained an assortment of reading materials about hypertension and about how people's lifestyles could influence their blood pressure. Different kinds of sphygmomanometers also were available so patients could become familiar with them and perhaps buy one for home use.

As part of my community involvement, I joined an advisory committee to help set up citizen task forces on fitness, eating, smoking, and blood pressure. These groups received funding from the Minnesota Heart Health Program (MHHP), sponsored by the University of Minnesota's Division of Epidemiology in the School of Public Health. It was a study designed to show whether community-based health education can lower cardiovascular risk factors and, ultimately, reduce death due to cardiovascular disease. That study is still continuing. (See interview with MHHP principal investigator Henry Blackburn, page 696, and related story, page 707.)

Although these groups received MHHP funding, I am convinced that outside financial help is not necessary for successful community health promotion. I have participated in a number of other nonfunded community health promotion activities that could be done in any community:

► I made presentations about hypertension to local groups such as the Rotary and Kiwanis clubs and to school district officials.

► I started a one-hour monthly radio show covering topics such as hypertension, exercise, nutrition, and how to quit smoking. The programs followed a question-and-answer format and usually featured one other community physician as a guest. Listeners were encouraged to call in with questions.

► I became active on the hospital medical education committee. This group of physicians helped to arrange talks for physicians about hypertension and other subjects, supported a local task force that worked with restaurant owners to identify heart-healthy foods on their menus, and helped initiate classes for people with hypercholesterolemia and hypertension.

The Result

Results in the entire community and among my patients have been very exciting. The 1987 American Red Cross volunteer survey of 12,700 adults in our area showed only an 8.3 percent incidence of high blood pressure (greater than 160/95), as compared with 18 percent in 1977 and 14 percent in 1981.[6]

In my private practice, the results appear to be equally dramatic. Regrettably, as is often a fault of fee-for-service practitioners, I failed to do a well-documented assessment of the incidence of hypertension before or after the office and community modifications. Still, my staff and I have witnessed dramatic changes between 1982 and 1987, highlighted by a drop in the prescription of hypertensive medication and fewer office visits by hypertensive patients.

Surprisingly, the practice changes proved to be cost-effective, as well. The ancillary practitioners easily paid for themselves and for the extra overhead. The nurse practitioner was poorly reimbursed by insurance for her time spent in educating patients, but that lost income was compensated for by her taking care of some of the call-in patients with minor health problems. As an unexpected bonus, the popularity of the practice increased to the point where we could not accept any new patients for many months.

A Return to Compassion

Most health care providers go into medicine with a wonderful sense of compassion and social responsibility. The grind of daily patient care tends to erode some of those ideals and can lead to cynicism and boredom with a medical practice. An excellent way to recapture some of the excitement of earlier years is to begin practicing community-oriented care. If only two physicians in a four-person practice took one-half day a month to begin identifying, assessing, and planning ways to meet their community's health needs, they could significantly improve health in their community while rejuvenating their own careers.

Former American Medical Association President James E. Davis, M.D., in his 1988 inaugural address, asked physicians to spend four hours each week serving the public: "I urge the physicians of America to make service an avocation as well as a vocation. In addition to enhancing our professional image and helping others, service truly is its own reward," Dr. Davis told his physician audience.[7]

Dr. Davis stated it very well. Whether physicians spend four hours each week or four hours each month, the rewards to the physician and to the community will undoubtedly be impressive. Physicians are their communities' experts on health care. It is time to use that expertise not only to help individual patients but to aid entire communities.

William Manahan is a Mankato, Minnesota, family physician. He recently completed a one-year Bush Fellowship in Boston, where he helped initiate a community-oriented primary care program.

Manahan references *to page 716*

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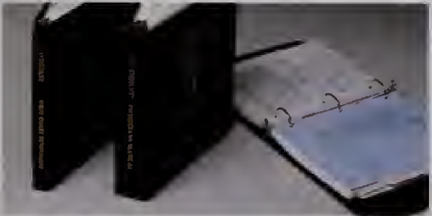

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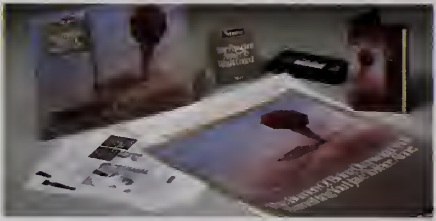

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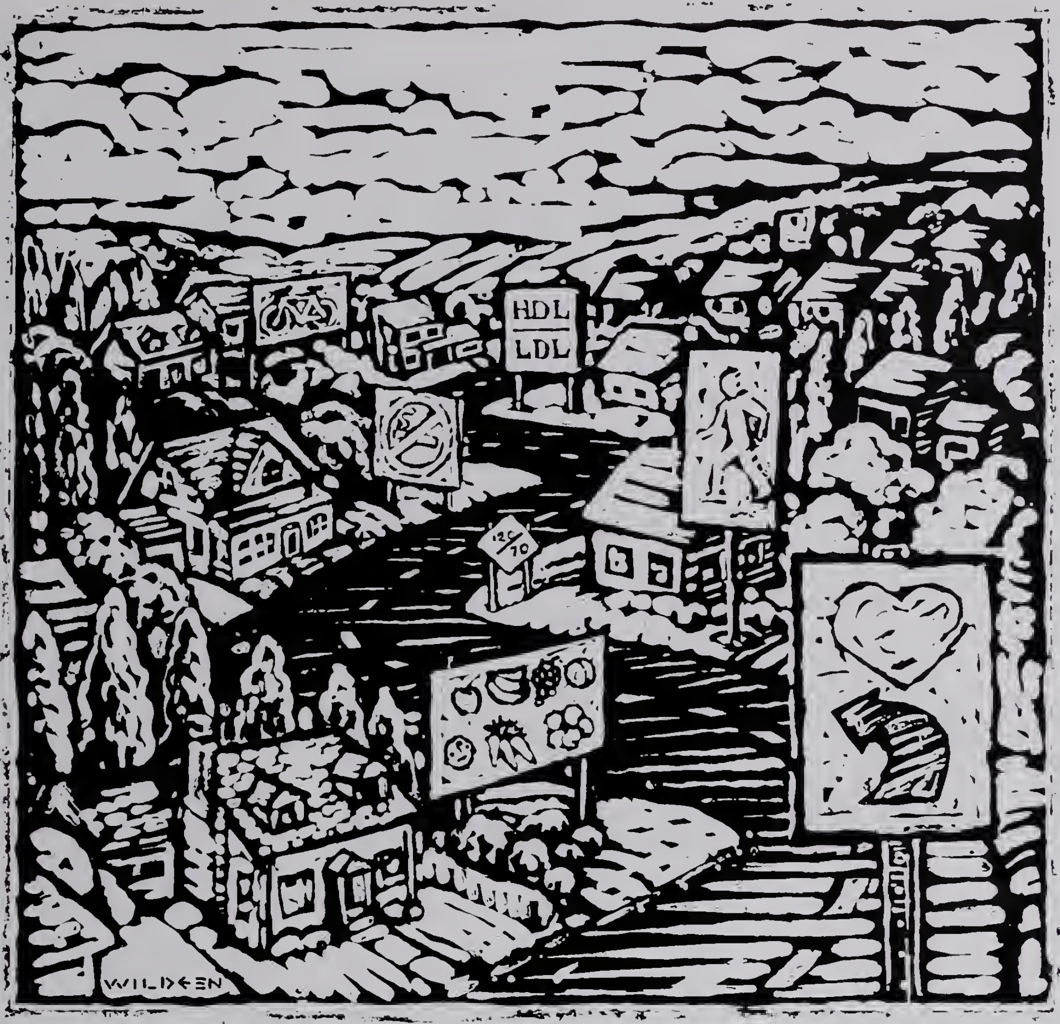

ILLUSTRATIONS BY NORA WILDGEN

PROMOTING HEALTH IN THE HEARTLAND

MIRIAM K. FELDMAN

Timber and tourism are two mainstays of Itasca County. Folks in the northern Minnesota county like to "brag up" the region's natural beauty. They boast of its fabulous resorts, its acres of forests, its opportunities for hunting, and its colorful logging history. They call it the four-season vacationland. They call it the land of the thousand grand lakes.

In December 1987, a piece of information came to light that creates a more disturbing picture of this otherwise naturally graced region. While studying hospital utilization rates across the state, research analysts at Blue Cross and Blue Shield of Minnesota (BCBSM) discovered that hospital admission rates for heart attacks in Itasca County were 82 percent higher than in the rest of the state.

Research analysts at BCBSM wanted to know why the heart attack admission rate was so high. Was it due to physician practice patterns? Or were Itasca County residents actually sicker than people in other parts of the state? To answer that question, BCBSM turned to the University of Minnesota's Division of Epidemiology.

The university's epidemiologists studied mortality data dating back to 1960 and found that the death rate from heart disease in Itasca County was higher than the state average and had been significantly higher since 1975. The studies confirmed what physicians in Itasca County had suspected all along: There was an inordinate amount of coronary disease in the population. Closer examination suggested a link between the residents' heart problems and certain lifestyle factors such as diet, smoking, alcohol consumption, and exercise.

A few years ago, such unsettling news might have been greeted not only with alarm, but with a lot of hand wringing. Today, however, when a community is faced with a serious public health problem, it can do something about it. Throughout the state, across the country, and even around the world, public health problems, such as the one in Itasca County, are being attacked with health promotion programs that aim to change the behavior of the entire community.

According to Lee Kingsbury, a health educator with the Minnesota Department of Health, the community approach to health promotion got a boost in 1972 with the publication of a study of seven "healthy habits" of residents of Alameda County, California. The study found that habits such as eating a balanced diet, getting enough sleep, and not smoking actually did make a difference in people's health. It was a landmark study because it established a link between lifestyle and longevity.

A number of studies over the past two decades built on that research. Millions of dollars have been spent on research projects trying to show that by changing the behavior of an entire community and getting people to adopt healthy habits, the health of the community can improve. The seminal community-based study was done in North Karelia, Finland, an area that had the highest coronary-related mortality rate in the world. The study, involving the entire community between 1972 and 1977, showed that lowering smoking rates, cholesterol levels, and blood pressure reduced coronary disease deaths.

During the past decade, researchers have tried to replicate the North Karelia success. Community intervention programs aimed at changing risky behavior have been the strategy of the renowned Stanford Heart Disease Prevention Program and the Pawtucket Heart Health Program. Closer to home, the Minnesota Heart Health Program (MHHP), a 10-year, $30 million project conducted by the University of Minnesota's Division of Epidemiology, has tried to reduce the risk of heart disease through massive education programs in three communities—Bloomington and Mankato in Minnesota, and Fargo, North Dakota. An underlying premise of MHHP is that health behaviors are learned and are influenced by the culture in which people live. MHHP set out to change those behaviors.

Whether or not MHHP has had an impact on changing behavior remains to be seen. (Results expected around March 1990 will show whether people in the target communities have changed their health behaviors.) But its impact already has been felt at the state level. Some of its members contributed to *A Guide for Promoting Health in Minnesota: A Community Approach,* published by the Minnesota Department of Health in January 1988. The guide is the result of a year-long inquiry by a 15-member task force that was appointed to look at ways to reduce the costs associated with preventable deaths. "Health promotion is an idea whose time has come," the guide declares. And it concludes that the most effective way to promote health is on a community-wide basis, because while change may begin at home, it depends on family and community support. While the Minnesota Department of Health is advising the state's 87 local public health agencies and 47 community health services to adopt the community approach to health promotion, the U.S. Public Health Service is giving similar advice nationally; its recently released goals for the year 2000 also recommend the community approach to improving our health.

Rallying an entire community behind a public health problem is definitely a trend now, and it's happening in all parts of the country, said Lawrence W. Green, vice president of the Henry J. Kaiser Family Foundation, a philanthropic organization that has funded 11 community projects in Western states and is now funding more in the South.

"It's a method of problem solving that has been around a long time but that has had a rebirth in the last several years," said Green, who was director of the federal Office of Health Promotion in the early 1980s. In the past, community intervention has been used in everything from child nutrition campaigns to the eradication of smallpox. Today, this method of problem solving is being used to attack such problems as teen-age pregnancy, substance abuse,

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cardiovascular disease, and drunk driving, Green said.

The renaissance of the community approach may be attributed to a number of factors, according to Green. One, the federal government has washed its hands of our local problems, leaving communities to fend for themselves, he argues. Two, the nature of the problems often requires a local solution. Finally, Green senses a revival of community spirit around the country.

The resurgence of community health efforts offered Itasca County a way to deal with its high heart disease rates, a problem that had been thoroughly explored in a number of communities.

Itasca's citizens, led by its physicians, decided to attack the problem with a community-based campaign. They spent a year meeting and planning, enlisting countywide support, and applying for grants. In January 1988, one year after the Department of Health published its new community guide for promoting health, the Itasca Heart Project was officially launched with the help of a two-year, $300,000 grant from the Blandin Foundation, BCBSM, and Merrell Dow Pharmaceuticals, Inc.

The heart project's motto became "ATTACK BACK!" and its aim was lifestyle changes—getting people to change eating and smoking habits and encouraging them to get more exercise, in the hopes of reducing high blood pressure, high serum cholesterol, and, ultimately, the incidence of heart attacks. As intended in community intervention strategies, the whole town got in on the act: the media, grocery stores, restaurants, schools, physicians, the public health department, and the YMCA.

Itasca may be running one of the biggest community health promotion campaigns in Minnesota today, but it is not the only one. Across the state, public health problems are being attacked community-style. In Green Isle, a 4-H group put together a weight control program for children. Buoyed by its success, the entire community, from children to seniors, got caught up in the exercise and nutrition campaign. In St. Cloud, a cancer prevention program is underway. A wellness coalition in International Falls is designing fitness trails for the community. Stearns County organized a car seat project, so that every infant would ride home from the hospital protected. And at least five local community health agencies have started cholesterol education programs.

While it may be true that the community approach to dealing with public health problems is nothing new, as Green points out, the emphasis on getting entire communities to change unhealthy behaviors is different. The Minnesota Heart Health Program is a prime example. "They [MHHP] didn't invent the wheel," says Green, but "they certainly deserve credit for trying to apply this in a more difficult area—heart disease."

According to some observers, the folks at MHHP deserve credit for doing their job well. MHHP did everything from screen thousands of people for coronary disease risk factors to media blitzes. It set up programs in supermarkets, restaurants, and schools. Judy Clare, a health educator in Stearns County who worked with the Mankato project for a while, recalls; "People exercising . . . neighbors talking over the fence about their husbands' cholesterol levels. They even got the kids into the act."

On that score, MHHP was a success. Studies have demonstrated that it raised the level of community awareness of heart disease risk factors. Nobody knows whether the program has altered people's behavior, but even before the final results are in, health professionals around the country are looking to MHHP as a model.

"People are looking to Minnesota for advice, for very specific information on how to do it," said Russell Luepker, M.D., professor at the University of Minnesota's Division of Epidemiology and MHHP co-principal investigator. "They don't want to be told it's a good idea. They already agree with that.

When the Money Runs Out

Miriam K. Feldman

What happens when the money runs out? A community intervention program such as the Minnesota Heart Health Program (MHHP) spent millions of dollars before it ended. Even a more modest effort, such as the Itasca Heart Project, is backed by a $300,000 endowment. In either case, the hope is that the communities will take over and find ways to sustain the programs long after the initial grant money is gone.

That's exactly what has happened in Mankato, where the university's Mankato Heart Health Program was taken over by the community and was renamed the Heart Health Program Foundation. The nonprofit foundation will take another turn soon and become the Health Promotion Council, reflecting the community's interest in moving beyond heart health to total wellness.

But even offshoots of the original programs need funds, and the folks in Mankato have found a sure moneymaker. It's a cookbook, called *Cooking* à *la Heart,* which was put together by several Mankato citizens, including Nadine Sugden, who was chair of the Heart Health Program in Mankato for two years and a citizen member of its advisory board from the start.

Sugden had been an active volunteer in the Mankato Heart Health Program's "eating patterns" efforts, which included everything from classes to recipe contests. Teaching people to eat right meant providing them with heart-healthy recipes, and those were distributed around town in grocery stores and at kiosks at the malls. Eventually, Sugden and another board member came up with the idea of pulling all the recipes together and putting them into one handy source.

Sugden recalls people saying, "You tell me to cook without salt, but how do I make the food taste good?" *Cooking* à *la Heart* has the answers. With the help of a writer and a registered dietitian, 357 of the townspeople's favorite recipes were compiled and modified—stripped of their salt and fat.

"Programs are just like checking accounts—you just keep writing the checks until you run out of money."

Three years later, and in spite of skepticism on the part of some university researchers, *Cooking* à *la Heart* hit the stands. The first 10,000 copies sold out in nine months. After its second printing of 5,000 sold out, the rights were sold, and a third printing will be out soon. The Mankato group received $10,000 up front for the rights to the book and will receive royalties. The book and donations have provided the Heart Health Foundation with $100,000, enabling it to continue its health promotion efforts.

The cookbook is not the only publication that came out of the MHHP efforts. A series of guides and materials for healthy living, called *Heartland Community Health Programs,* is now available to anyone interested in duplicating MHHP's classes and programs. The series of nine guides explains everything from how to conduct a weight-loss clinic to ways to set up a workplace smoking program.

The "Heartland" manuals represent the fruits of MHHP, says Jim Bluhm, who has been with the MHHP program since 1986. Bluhm is now director of the Bloomington Heart and Health Program, a nonprofit organization that he calls a spin-off of the federally funded Bloomington Heart Health Program. Aside from directing the program and doing some public speaking on community interventions, Bluhm has been busy promoting the Heartland manuals.

The successful continuation of MHHP programs in Bloomington and Mankato bode well for newer projects like the one in Itasca, which is at the halfway mark in its two-year effort to get people to change their unhealthy behaviors. Ron Johnson, M.D., president of the project's advisory council, hopes the community will find some way to continue the efforts when the grant money runs out. "It would be nice to see after the funding for the first two years expires that there would be an undertow here that would maintain activity among business people, schools, the public health department, and the clinics," Johnson said.

In fact, continuation of a project is an important part of the process, argues Julie Gleason, a former MHHP research associate and coordinator of the project's first dissemination conference held in June, called, "What Works, What Doesn't, and Why?"

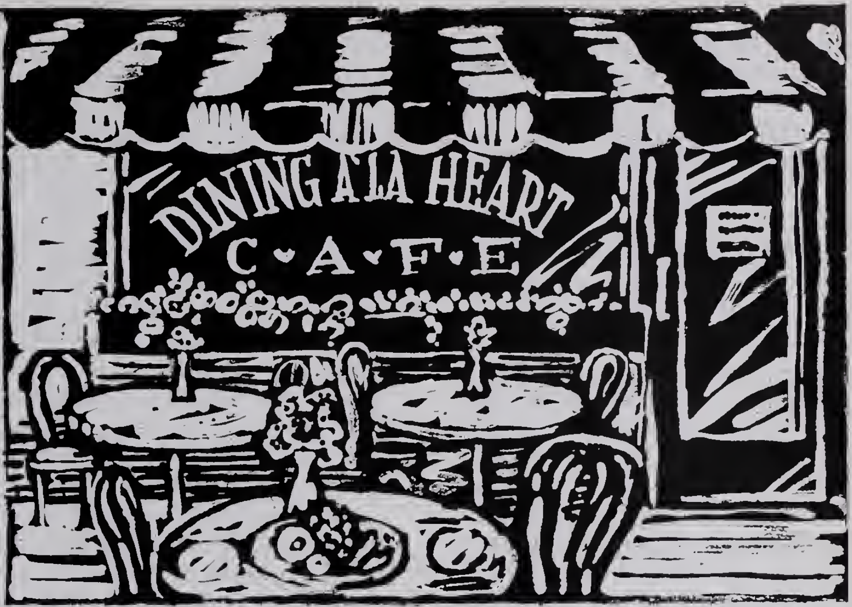
"What works is giving the community ownership," Gleason said. "I have learned from MHHP that health education, disease prevention, and health promotion only work if you take the time to vest the community. Otherwise, programs are just like checking accounts—you just keep writing the checks until you run out of money."

They want specific, practical information on how to do it."

That's what the citizens of Itasca County wanted. "The people in Itasca County were looking for good health promotion tools," said Dale Hustedt, director of the Itasca Heart Project. They borrowed what he calls, a lot of "effective, very solid, very strong programs," from MHHP. They used MHHP's "Dining à la Heart" program, in which heart-healthy items are identified on restaurant menus. And they borrowed "Shop Smart for Your Heart," a program that teaches consumers how to make healthy food choices by encouraging supermarkets to prominently display lean cuts of meats, fresh fruits and vegetables, and recipes for preparing low-fat meals.

There are many similarities between the Itasca Heart Project and MHHP, and there is one basic difference, according to Hustedt. The university conducted a research study designed to see how people's lives could be changed through health promotion, and it took what was seen as a typical population. Itasca is also trying to change lifestyles, but it does not have a typical population. Its population appears to be sicker than others.

Like MHHP, the Itasca project is conducting mass screenings to identify individuals at risk for heart disease. Those found at risk during the free screenings are encouraged to see a physician. Those who are uninsured or underinsured are given vouchers that can be redeemed at any physician's office in the county. The voucher system is a sign of the physicians' commitment to the program, since the vouchers, worth about $25, do not come close to reimbursing the cost of office visits and lab fees, Hustedt says.



Most of the physicians in Itasca County have also agreed to take part in the "Doctors Helping Smokers" program, involving a two- or three-minute lecture to patients about smoking. A follow-up referral to a nurse or a class is also part of the program. At last count, 2,300 adult patients who are smokers were identified through clinic visits, and more than 1,500 had received a physician intervention message. By August, 120 smokers had quit.

Charles Kampen, M.D., has been an internist at the Grand Rapids Clinic in Itasca County for 17 years. Over the years he has tried to convince his patients, many of whom are older people with a lot of chronic problems, to stop smoking. But he had little success until he took part in "Doctors Helping Smokers." "I was really amazed at the people who have quit," he said.

That news doesn't surprise health educator Kingsbury. It's proof to her that community health promotion works. It says that while the physician is an important player in health promotion, there are other players, too.

In other words, the patients who stopped smoking were getting messages in the community that reinforced what Kampen was telling them. "We know that if the physician gives the advice, people believe and listen to what the physician says," Kingsbury said. "The physician is a key piece in the health community. They definitely need to be involved,"

But individuals need the support in the community to help them follow through on the physician's advice. This is true with diet, as well. If the physician tells the patient to lower cholesterol by eating less fat, it helps that the restaurants and supermarkets in town are featuring low-fat meals and leaner cuts of meat. "The physician can't do it alone," Kingsbury said.

Ron Johnson, M.D., president of the Itasca Heart Project's advisory council, believes community-based efforts make physicians' jobs easier by giving them something to rally behind. "We have an obligation with the program. It makes us more responsible to do it," said Johnson, who has been a family practitioner in Grand Rapids for 15 years.

"The physicians in Itasca County have really been standing firmly behind the heart project since before it even started, and they have made a lot of sacrifices to try to help the residents of Itasca County," Hustedt said. They've given time by serving on committees and by speaking in public. They've made a financial commitment by agreeing to accept vouchers. And they have offered more time by giving the no-smoking message.

The spirit of cooperation in Itasca helped get the program off to a smooth start. "It's been an unbelievably easy stretch to get the whole thing implemented, because there's been so much cooperation with the hospitals and clinics, the physicians themselves, and various agencies we work with, such as the public health department and the YMCA," Hustedt said.

Of course, it also helped to have a $300,000 endowment. Not every community is lucky enough to land a grant of that size. The lack of money can be a source of frustration to public health officials. Stearns County health educator Judy Clare attended an MHHP conference last June designed to tell people like her what worked and didn't work in the program's three communities. Clare has had some experiences with MHHP and has been impressed by what she has seen. While she is excited by some of the possibilities presented by MHHP, she nevertheless feels somewhat frustrated. "We, down at the local level, have to figure out ways to do this with little or no money," she said.

Leupker points out that while MHHP spent $30 million over 10 years, much of that money went into research and development of programs, something other programs do not have to do. "On the other hand, without some level of commitment and resources it is hard to do things," he concedes.

Even if the resources are there, it can be difficult to form the necessary coalition to deal with a public health problem, Clare says. In Mankato, she observes, "they did their homework really well." They got a community organizer, and they were able to get what she calls "the power people" behind the program. "That may be hard to do in some communities because of politics," Clare said. Proposals for community health interventions must be convincing, she argues, or they can be met with resistance.

Even a successfully launched program, such as Itasca's, can have its share of frustrations. The Itasca project is having trouble reaching the high-risk population—the 20- to 30-year-old men who are heavy smokers and don't exercise much, Johnson said. "It's hard to get at the young men who are really at risk. A lot of them don't see themselves at risk."

Even if people do see themselves at risk, they may choose to disregard doctors' orders because of mixed messages in the media. The most recent confounding example is an article that appeared in the September issue of the *Atlantic Monthly.* In "The Cholesterol Myth," author Thomas J. Moore attacked the numerous research projects that have attempted to lower serum cholesterol levels through diet and drugs, concluding that diet doesn't make much difference, and the drugs that do lower cholesterol don't always improve or extend lives.

While the article has been dismissed by many researchers, including those at MHHP, as focusing on a few ambiguous studies and using an extreme sub-selection of information, it can have an impact on the public. An article like that can wreak havoc on a health promotion campaign. Itasca director Hustedt notes that in the most recent screenings, people have been saying that they heard cholesterol doesn't really make any difference, or they've heard it doesn't matter what you eat.

Health educator Clare agrees that the mixed messages do complicate health promotion efforts. "People are being so bombarded by health—cholesterol being a good example—that after a while I hear people saying, 'One week you do this, and the next week you do that.' " And then, she says, they point to a 99-year-old man who smoked all his life and ate what he liked. "Our audiences are getting more sophisticated," she said. "They're not just willing to say, 'Yes, ma'am.' People believe what they want to believe. It's hard to change behavior. It's getting harder and harder to do."

And if behavior is changed, are lives saved? The assumption, supported by the North Karelia study, is yes. But it will be at least five years before MHHP knows if its $30 million intervention program saved a life. And it will be even longer before Itasca gets results.

"If we can find that there's a reduced incidence of coronary heart disease in Itasca County 10 years down the road, or 20, obviously that's a good sign that we may have done something," Hustedt said. "If we find improved knowledge of residents, that can also be an identifier that we succeeded in helping the residents."

But allowing himself a more philosophical moment, Hustedt admits that there are limits to what any health promotion program can do.

"We can put together programs that can help people make healthier choices. We can do our best to get the word out to the population as to what healthier choices are. But the bottom line is that you can know everything, but if you don't make the change yourself, it's not going to help you. If you have your head full of the knowledge of what smoking can do to you, but you continue to smoke two packs of cigarettes a day, you're really not becoming any healthier. You're just more knowledgeable."

Miriam Feldman is a free-lance writer living in Minneapolis.

A Controlled Trial to Implement Smoke-free Hospitals

Judy M. Knapp, M.P.H.; Thomas E. Kottke, M.D.; and Charles Heitzig

Hospitals would logically become leaders if the nation is to accept former Surgeon General C. Everett Koop's challenge to make its public institutions smoke-free by the year 2000. We tested whether printed materials, workshops, newsletters, and consultations could increase both the number of smoke-free hospitals in a state and the rate at which they became smoke-free. All acute-care hospitals in Minnesota ($n = 166$) were compared to a sample of 51 acute-care hospitals in a reference area, western Wisconsin, before and after a one-year campaign. While 2.4% of the hospitals in Minnesota were smoke-free before the campaign, none of the hospitals in the reference area sample was smoke-free at this time. Both areas experienced a significant increase in the proportion of hospitals that became smoke-free during the year—30.7% of the Minnesota hospitals and 15.7% of the hospitals in the reference area sample ($p < .01$) were smoke-free after the one-year campaign—and the campaign did appear to marginally increase the rate of adoption in Minnesota over that of the reference area ($p = .08$). The results of this study indicate that smoke-free hospitals are feasible and that a statewide initiative can facilitate the hospitals' decision to become smoke-free.

Former Surgeon General C. Everett Koop has challenged the nation to become smoke-free by the year 2000. Smoke-free hospitals (no smoking anywhere inside hospital buildings as a minimum standard) could be an institutional leadership model for schools, businesses, and other community institutions. However, in 1988 only 8% of hospitals in America were smoke-free.[1]

Smoke-Free Hospitals by 1990 was organized in 1986 to encourage hospitals in Minnesota to establish smoke-free policies. The intervention model was developed during the first year of the project, and during the second year of the project, all Minnesota hospitals were invited to join in the effort to become smoke-free. It was hypothesized that a one-year intervention consisting of a statewide education program, resource materials, training workshops, and consultation services would result in more hospitals becoming smoke-free in Minnesota than in a reference area that did not receive the intervention.

Methods

Intervention methods: Administrators, physicians, and other personnel from all 166 acute-care hospitals in Minnesota were invited to participate in a six-hour workshop scheduled at six sites throughout the state. The workshop content included didactic information on the health, legal, and economic issues related to establishing a smoke-free hospital. A model organizational policy development and implementation plan was presented, and tactics and strategies were discussed in small-group problem-solving sessions. *Clean Air Health Care*,[2] a step-by-step manual for policy implementation, was mailed to all hospital administrators in Minnesota. Consultation by the Minnesota Smoke-Free Coalition staff was available upon request. A list of smoke-free hospitals and those with target dates was periodically compiled and distributed statewide. Hospital personnel were encouraged to discuss policy implementation with staff members from hospitals that already had adopted smoke-free policies. The Minnesota Medical Association, the Minnesota Hospital Association, the Minnesota Society of Respiratory Care, and other professional organizations publicized the smoke-free-hospitals movement in Minnesota. Hospitals' smoke-free activities were featured in news articles, and the Minnesota Smoke-Free Coalition, Minnesota Medical Association, and Minnesota Medical Association Auxiliary presented a joint award to each hospital that became smoke-free. Hospitals in western Wisconsin, the reference area, did not receive any intervention.

Evaluation methods: One hundred sixty-six acute-care hospitals in Minnesota were identified from the Minnesota Department of Health list of hospital licenses, and 133 acute-care facilities in Wisconsin were identified from the Wisconsin Hospital Association membership roster. Only acute-care hospitals were considered eligible for the study; psychiatric hospitals, state hospitals, and Veterans Administration hospitals were excluded from the evaluation. All 166 acute-care hospitals in Minnesota and a randomly selected sample of 51 acute-care hospitals in western Wisconsin were surveyed before and after the campaign.

Baseline telephone surveys of eligible hospitals were conducted by a trained telephone interviewer in January and February of 1987. Respondents were asked about their hospitals' current policies on smoking, progress toward adopting a smoke-free policy, and perceived barriers to a smoke-free hospital. A hospital was considered smoke-free if its respondent said yes to the question, "Does your hospital have a smoke-free policy, meaning that it doesn't allow smoking anywhere in the hospital?" Hospital administrators were the preferred respondents, but when administrators felt unfamiliar with their hospitals' policies, they were permitted to select someone else to complete the survey. A follow-up interview was conducted one year later to determine the extent to which the policies on smoking had changed. The overall response rate for both surveys was 99%. The statistical significance of differences between the two areas (area effects), changes over time (time effects), and differential change over time in the two areas (time-area interaction) was tested with multivariate regression analysis.

A sample of the Minnesota hospitals that reported themselves smoke-free (n = 21, 42%) was visited by a University of Minnesota student intern to verify the claim. The intern looked for signs stating that the hospital was smoke-free and searched for evidence of smoking, such as the presence of ashtrays, cigarette butts, or tobacco odor, anywhere in the hospital. The intern also inquired at the hospital's information desk for the location of a smoking area. Finally, each hospital was asked to submit a written copy of its smoke-free policy.

Results

All hospitals completed the survey before the campaign, and only one hospital refused to complete the telephone survey at follow-up. Hospital administrators completed three-quarters of the surveys. Directors of health services, nursing, personnel, or education departments completed the remainder. Hospital site (urban, rural, suburban) was similar among Minnesota and reference area hospitals (Table 1). The majority of respondents classified their hospitals as rural.

TABLE 1

Sites of Minnesota and reference area hospitals

Site of hospital	Minnesota (n = 166)	Reference area (n = 51)
Urban	14.8%	13.5%
Rural	74.5%	76.9%
Suburban	10.7%	9.6%

TABLE 2

Percent of intervention and reference-area hospitals with smoke-free policies before (baseline) and after intervention

	Minnesota (n = 166)	Reference area (n = 51)	Significance (p)*		
			time	area	time/area
Baseline	2.4%	0			
Follow-up	30.7%	15.7%	.01	.64	.08

*Significant time effects indicate change over time; significant area effects indicate a difference between the reference area of Minnesota regardless of time; time/area effects indicate a change occurring at a different rate in Minnesota compared with reference area.

Implementation of smoke-free policies: Before the smoke-free campaign, only four hospitals in Minnesota were smoke-free; no hospitals in the reference area were smoke-free (p = NS; Table 2). Over the year of the campaign, the prevalence of hospitals with smoke-free policies increased significantly in both areas ($p < .01$), with a trend for greater adoption in Minnesota (p = .08). After one year, 51 Minnesota hospitals (31%) and 8 reference area hospitals (16%) were smoke-free. One-third (32.8%) of rural hospitals, and 10% of urban and suburban hospitals in the combined survey area were smoke-free at follow-up.

In all measures of commitment to adopt a smoke-free policy, Minnesota hospitals started ahead of reference area hospitals (all $p < .001$; Table 3). About 30% of hospitals in both states showed increased commitment to becoming smoke-free facilities (all $p < .01$), but the effect was not greater in one area compared with the other (p = NS).

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TABLE 3

Descriptors of commitment to adopting a smoke-free policy

Descriptors	Minnesota (n = 166)	Reference area (n = 51)	Significance (p)*		
			time	area	time/area
Hospital plans to become smoke-free					
Baseline	57.4%	25.0%			
Follow-up	81.3%	51.0%	.003	.0001	.84
Administration supports smoke-free policy					
Baseline	46.8%	13.5%			
Follow-up	74.1%	43.1%	.001	.0001	.82
Medical staff supports smoke-free policy					
Baseline	43.2%	13.5%			
Follow-up	65.1%	35.3%	.01	.001	.99
Policy placed on board's agenda					
Baseline	45.0%	13.5%			
Follow-up	69.9%	35.3%	.01	.001	.76

*Significant time effects indicate change over time in both areas; significant area effects indicate a difference between the reference area and Minnesota without regard for time; time/area effects indicate a change occurring at a different rate in Minnesota compared with the reference area.

TABLE 4

Descriptors of progress toward adopting a smoke-free policy

Descriptors	Minnesota (n = 166)	Reference area (n = 51)	Significance (p)*		
			time	area	time/area
Progress toward smoke-free policy					
Baseline	45.6%	23.1%			
Follow-up	72.3%	45.1%	.01	.003	.65
Task force established					
Baseline	40.8%	9.6%			
Follow-up	62.1%	23.5%	.12	.001	.48
Smoke-free date set					
Baseline	32.0%	9.6%			
Follow-up	64.5%	35.3%	.004	.002	.50

*Significant time effects indicate change over time in both areas; significant area effects indicate a difference between the reference area and Minnesota regardless of time; time/area effects indicate a change occurring at a different rate in Minnesota compared with the reference area.

TABLE 5

Number of smoke-free hospitals with adverse outcomes resulting from a smoke-free policy

Outcome	Minnesota (n = 51)	Reference area (n = 8)
loss of admissions	5	0
employee resignations	1	0

ment, Minnesota hospitals started ahead of reference area hospitals in the measures of progress toward becoming smoke-free (all $p < .01$; Table 4). Hospitals in both states progressed significantly but equally toward smoke-free policies, with an additional 25% of hospitals in both states setting a date to become smoke-free during the campaign year.

No hospital reported a discernable change in admissions or occupancy resulting from a smoke-free policy (Table 5). While five hospitals reported a decrease in patient numbers, no hospital reported the loss of more than two patients. Half of the smoke-free hospitals perceived employee opposition as a barrier to adopting its policy. However, only one hospital reported an employee quitting because smoking was prohibited.

Although the majority (65%) of hospitals with smoke-free policies reported not experiencing any problems with the policy, 15% did report that monitoring and enforcing the policy were problems. Respondents from smoke-free hospitals reported that endorsement by the hospital board and medical staff, establishment of a smoke-free task force, employee support for the policy, and a knowledge that other hospitals were adopting smoke-free policies were the factors that they considered the most helpful in their attempts to implement their policies.

The site visits at the sample of smoke-free hospitals in Minnesota verified the self-reports. Signs indicating that the hospital was smoke-free (i.e., "For the Health of Our Patients, No Smoking Please") were clearly visible in all hospitals. Evidence of people smoking—cigarette butts or the smell of smoke—could not be found in any of the hospitals. All hospitals that reported being smoke-free provided the investigators with a written copy of their policies.

Comment

Smoke-free hospitals are feasible, and a statewide initiative appears to facilitate the decision of hospitals to become smoke-free. One-third of Minnesota hospitals and 16% of reference area hospitals were smoke-free after one year of intervention. As of December 1, 1988, 45% of Minnesota acute-care hospitals were smoke-free. The probability that the trial had no effect is less than one chance in 10.

Although Minnesota's experience may be somewhat different from that of other states, there are lessons to be learned from this trial. First, peer support appears to be a powerful motivating force when attempting to create smoke-free hospitals. The statewide initiative activated the hospital administration peer network and provided an opportunity for hospitals to exchange ideas and information while maintaining independence of decision making and innovation. The first hospitals to adopt smoke-free policies were smaller than the others and usually were rural. It appears that the adoption of smoke-free policies in the larger hospitals may have been slowed by organizational bureaucracy and the need for a greater number of people to reach consensus. Most of the hospitals in the study did not have psychiatric or chemical dependency units, and the two hospitals with chemical dependency or psychiatric units had restricted smoking to one small lounge.

Second, this effort appears to have contributed to the passage of a law that requires all Minnesota hospitals to be smoke-free by January 1, 1990.[3] (The law was introduced during the 1987 legislative session. At the time, about 12 hospitals in Minnesota had successfully adopted smoke-free policies, and others had set commitment dates to become smoke-free. This information was presented as testimony to state legislators, demonstrating that smoke-free hospitals are feasible and policies can be effectively implemented with wide acceptance by staff and patients.) The law allows for only two exceptions to a total ban of smoking within a building where health care is delivered: 1) Patients may smoke when authorized in writing by their physician, and 2) chemical dependency and mental health units may set aside a "separated, well-ventilated area pursuant to a policy established by the administrator of the program that identified circumstances in which prohibiting smoking would interfere with the treatment of persons recovering from chemical dependency or mental illnesses."[3]

Third, the concerns about patient loss, employee resistance and turnover, and policy enforcement appear to be largely unfounded. The hospitals in this study did not experience significant patient or employee loss. However, resistance can be expected from a small portion of the staff, and attention must be given to the terms of labor contracts before implementing the policy. It appears wise to inform labor unions early in the process that a policy change is under consideration. Only 15% of smoke-free hospitals reported problems with monitoring and enforcing their policy; enforcement became less of a problem after the transition period was completed.

The experience in Minnesota also demonstrates that the public looks to hospitals to provide leadership in promoting smoke-free environments. Even one smoke-free hospital in a region encouraged other hospitals to follow. Anecdotal reports also indicate that smoke-free hospitals inspired local schools and businesses to adopt smoke-free environments.

Whether Minnesota is causing the trend or simply part of the trend, there is clearly a national movement toward smoke-free hospitals. The major national health associations all endorse the concept. The American Medical Association passed a resolution this year advocating that all American hospitals ban tobacco use by January 1, 1991. Large medical centers such as the Mayo Clinic, Johns Hopkins University Hospitals, the University of Chicago Hospitals, and Duke University Medical Center have successfully adopted smoke-free policies.[4] The hospital associations of New Jersey, Massachusetts, California, and New Mexico have all recently passed resolutions urging their member hospitals to take voluntary action to become smoke-free. On a federal level, nearly the entire Indian Health Service is smoke-free.[5] In a May 1988 letter, the then Surgeon General C. Everett Koop and William Roper, director of the Health Care Financing Administration at that time, asked all 7,000 hospitals that participate in Medicare to initiate action to become smoke-free.[6] In June 1988, the Minneapolis Veterans Administration Medical Center became the first smoke-free hospital in that system.[7] Unless the momentum suddenly changes, the majority of hospitals in the United States will be smoke-free within the next five to 10 years. Smoke-free hospitals can provide institutional leadership for smoke-free schools, businesses, and other community institutions.

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References

1. Holland R: National Hospital Tobacco Smoking Policy Survey. American Lung Association of Lancaster County and the Pennsylvania Academy of Family Physicians, 1988.

2. Knapp J, Silvis G, Sorensen G, Kottke TE: Clean Air Health Care: A Guide to Establish Smoke-Free Health Care Facilities. Minneapolis, Minnesota Coalition for a Smoke-Free Society 2000, 1986.

3. Minnesota Statutes, section 144.414, Subd. 3., 1987.

4. American Medical Association House of Delegates, Resolution 29, A-89.

5. Welty TK, Tanaka ES, Leonard B, et al.: Indian Health Services facilities become smoke-free. JAMA 258:185, 1987.

6. Koop CE, Roper WL: Washington, DC: Department of Health and Human Services. Letter to administrators of hospitals participating in Medicare. May 11, 1988.

7. Joseph AM, Korn JK: Are veterans really different? The feasibility of a smoke-free VA. JAMA 260:1551, 1988.

Manahan references from page 704

References

1. Kark S: The Practice of Community-oriented Primary Health Care. New York, Appleton-Century-Crofts, 1981.

2. Kark SL, Abramson JH: Introduction. Isr J Med Sci 17:765-770, 1981.

3. Institute of Medicine: Community-oriented primary care: A practical assessment. Washington DC, National Academy of Sciences, 1984.

4. Nutting PA: Community-oriented primary care: From principle to practice. Rockville, Miss, Health Resources and Services Administration, 1987.

5. Mullan F: Community-oriented primary care: An agenda for the '80s. N Engl J Med 307:1076-1078, 1982.

6. Qvamme VJ: Statistics of North Mankato, Mankato and Blue Earth County blood pressure screening clinics. Mankato, Minn, Region Nine Annual Report, 1987.

7. Perone J: Dr. Davis urges physicians: give a 'tithe of your time.' Am Med News, July 8/15, 1988.

Minnesota Enacts a Brain Death Law

Ronald E. Cranford, M.D.

On August 1, 1989, Minnesota became the 49th state to legalize the concept that the death of the brain (whole brain death) equals the death of the person. South Dakota is now the only state without a statute or state Supreme Court decision on this matter. This law, cited as the Uniform Determination of Death Act (Chapter 93, SF No. 227) was passed by the Senate on February 23, 1989, and then by the House on April 3.[1] The governor signed it on May 9, and the law became effective August 1.

A Model for Defining Brain Death

This Uniform Determination of Death Act (UDDA), the model used in almost all states enacting brain death legislation in the 1980s, has been endorsed by the American Medical Association, the American Bar Association, the National Conference of Commissioners on Uniform State Laws, and the President's Commission for the Study of Ethical Problems in Medicine and Biomedical and Behavioral Research. The act was originally formulated in 1979-80 and then approved by these organizations in 1980-81.

The law is straightforward and contains only two sentences of substantive nature (subdivision 2). The first sentence reads: "An individual is dead if the individual sustains irreversible cessation of: 1) circulatory and respiratory functions; or 2) all functions of the entire brain, including the brain stem." The second sentence reads: "A determination of death must be made in accordance with generally accepted medical standards." The law passed in Minnesota is virtually identical to the UDDA passed in the other states except for a minor grammatical change in the first sentence and a slightly more substantive change in the second sentence, to which the Minnesota Legislature added the word "generally." The legislators apparently were concerned that using the term "accepted medical standards" was not precise enough and could possibly lead to any type of medical standards being used by the medical profession. Therefore, they added the word "generally" to place a stronger burden on physicians to show that specific medical criteria for the determination of brain death were more widely (or generally) accepted in the medical community.

It is important to note that despite the efforts of some Minnesota legislators, the UDDA does not contain any specific medical criteria to determine when the brain has actually died. In other words, the law merely codifies the concept that there are now two ways of diagnosing the death of a person—either by using the cardiorespiratory standard or the neurological standard.

The History of Brain Death Legislation

Minnesota was one of the first states to promulgate specific criteria and related procedural guidelines for members of the medical profession to determine brain death. These criteria were endorsed by the Board of Trustees of the Minnesota Medical Association (MMA) in November 1976.[2] In January 1982, the MMA chose to endorse national guidelines contained in the Report of the Medical Consultants on the Diagnosis of Death to the President's Commission for the Study of Ethical Problems in Medicine and Biomedical and Behavioral Research.[3] (Copies of this report, published in the November 3, 1981, Journal of the American Medical Association, are available from the MMA.)

To prepare this report on defining death, the President's Commission enlisted the assistance of 56 neurologists, neurosurgeons, pediatric neurologists, neuropathologists, and other physicians to develop a set of medical standards that could be used by physicians nationwide. This set of medical criteria is the only one that would fall under the category of "generally accepted medical standards," referred to in the new Minnesota law. Neurologists, neurosurgeons, pediatric neurologists, and others who are called in to advise on assessing brain death should be familiar with these national criteria. If individual physicians use criteria that are somewhat different than these standards, they may be called upon to defend their deviations from these generally accepted criteria.

For example, the guidelines developed by the medical experts to the President's Commission stated that, when irreversible causes of brain dysfunction had been ruled out, there normally should be a six-hour period of clinical observation if confirmatory studies such as EEG or blood flow studies are used. In the absence of confirmatory tests, a period of observation of at least 12 hours is recommended, even when an irreversible condition has been well established. The previous criteria adopted in Minnesota in 1976 had called for a minimal period of 12 hours before a diagnosis of brain death could be confirmed. The original Harvard criteria of brain death established in 1968 had advocated a 24-hour period of observation—even with confirmatory studies.[4] So, the period of observation has decreased as physicians have gained more experience in the clinical diagnosis of brain death. Part of this decrease is related to the use of more definitive confirmatory studies, such as those that can document absence of blood flow to the brain. In fact, over the years, clinicians have become less reliant on the EEG and more reliant on blood flow studies such as radioisotope bolus angiography or gamma camera imaging.[5] The radioisotope studies are a much more precise, faster, and efficient way of confirming brain death than the EEG.[6]

In order to gain a perspective on the recent enactment of the brain death law, it is important to briefly retrace the history of brain death legislation in Minnesota. In 1975, because of interest generated nationwide and in Minnesota by the Karen Quinlan case in New Jersey, the MMA established an ad hoc committee on death. After studying issues related to death and dying, this ad hoc committee formulated specific medical criteria for the determination of brain death and also formulated proposed legislation for consideration by the Minnesota Legislature. As previously mentioned, Minnesota became one of the first states to establish "generally accepted medical standards" for diagnosing brain death through the work of this committee and the approval of the MMA in November 1976.

When a brain death bill was introduced before the Senate Judiciary Committee in early 1977, the pro-life movement and the Minnesota Catholic Conference opposed it.[7] Their opposition rested not on the pros and cons of the brain death issue per se, but on the "slippery slope" argument. It was based on the (unfounded) fears that brain death legislation would inevitably lead to "abortion, euthanasia, and infanticide."[8] Even though the state medical association felt there were compelling reasons for the enactment of a brain death law in Minnesota, the MMA decided not to push for this legislation in the late '70s or early '80s in the belief that reason and clinical accuracy would not have prevailed over the simplistic arguments of the pro-life movement, which at the time held much more appeal for the legislators.

Defining Brain Death in Criminal Cases

While the Minnesota Legislature failed to act, numerous major national and local developments led to increasingly widespread acceptance of the brain death concept by the medical and legal professions and the public. Ironically, although the Minnesota Legislature fell increasingly behind national trends, the state continued to be a national leader in bioethical issues of termination of treatment and brain death.

Two Minnesota cases in 1978 demonstrated the need for brain death legislation. In March 1978, John Malchow was pronounced dead on the basis of brain death at the Hennepin County Medical Center (HCMC) in Minneapolis. This patient was a victim of a fire set by Roger Gerszewski. Even without a definitive brain death statute in Minnesota, it had been the practice at HCMC to pronounce patients who were brain dead as dead—regardless of pending criminal charges against the assailant. When Malchow died, the charges against Gerszewski were changed from attempted murder to murder. Later, Gerszewski's lawyers argued that he should not be tried for murder because the physicians, and not Gerszewski, had been the primary "cause" of Malchow's death. This argument, which had been used in other states over the previous decade, was rejected by a Hennepin County judge, who called upon the Minnesota Legislature to clarify the legal status of brain death.[9]

In June 1978, 4½-year-old Stacey Ellison was brought to Children's Hospital in St. Paul by his mother, who admitted assaulting the child and was immediately arrested. The next morning, doctors at Children's Hospital determined that the child was brain dead. However, after receiving poor legal advice from hospital legal counsel, the doctors were told not to declare the child dead, because brain death was not "legal" in Minnesota, and there could be possible criminal or civil liability if the doctors pronounced this child dead. Thus, for 38 days, Stacey Ellison was maintained on life-support systems while the legal status of brain death was argued before a trial court in St. Paul. After 38 days, Judge Archie Gingold ruled that the child could be pronounced dead by physicians, and life-support systems were discontinued.[10] At that time (and earlier, in 1976, when the MMA had first sponsored legislation) numerous editorials in Minneapolis and St. Paul newspapers called for the Minnesota Legislature to act.[11-15] In December 1979, the American Medical Association dropped its opposition to brain death legislation and began working with other organizations to formulate the Uniform Determination of Death Act.

In 1988, another case arose in Minnesota similar to the Malchow and Ellison cases. In January 1988, Duane Olson was charged with second-degree murder and first-degree manslaughter for the death of his infant son, Dustin Olson. The defendant was accused of causing serious brain injury (leading to brain death) when he violently shook the infant on January 1, 1988. Again, as in previous cases in Minnesota and other states, the defendant's lawyers argued that cardiorespiratory death occurred after the child's treating physicians disconnected the life-support systems sustaining his bodily functions. Therefore, their argument goes, there was no causal connection between the alleged assault on Dustin and his death, since the treating physicians had not used legally valid standards for the determination of death in Minnesota. In pretrial deliberations, Judge Steven Askew, recognizing the social and legal significance of this case, certified this question of the legal status of brain death to the higher courts in Minnesota.[16] He also noted that over the years the Minnesota Legislature had failed to act on this question of far-reaching importance. Judge Askew concluded that the defendant's motion to dismiss the complaint for lack of a probable cause (related to the uncertain legal status of brain death) raised a question so important that it required a decision from the higher courts in this state.

On appeal, the Minnesota Supreme Court, while noting that there was overwhelming evidence to support legalizing brain death, declined to say specifically whether brain death was legal death in Minnesota but instead urged the Minnesota Legislature "with its broad-based representation, its committee hearings, and its floor debates," and having "the kind of public forum this issue deserved," to enact a UDDA similar to those of other states.[17] The Supreme Court noted that the Legislature had not acted, even though a bill was initially introduced in 1977 and again in 1979.

Besides pointing out the current conflicts in the criminal laws (as evidenced by the Malchow, Ellison, and Olson cases), the court noted the problems that lack of legislation posed for physicians who had accepted brain death as patient death, and it concluded that physicians should not be faced with continued medical and legal uncertainty on an issue that had been accepted medical practice for more than 20 years. The high court also cited reasons given by treating physicians as to why brain death should be defined as legal death in Minnesota: the medical profession has a duty to treat the living; maintaining artificial appearance of life in a dead body is an affront to human dignity and exacts a heavy emotional toll on the patient's family and the hospital's nurses and staff; organs in a brain-dead body being maintained on a life-support system begin deteriorating and soon become unusable for donation and transplantation; and it is inappropriate to devote scarce and expensive resources to maintaining a brain-dead body. The high court also noted that the concept of brain death was firmly established in the medical community and had been accepted by an impressive number of state legislatures and that no appellate court had denied the validity of the concept.

The state Supreme Court not only strongly urged legislative action, it went one step further. While declining to rule specifically on the legality of brain death as death, the justices warned that, if the Legislature did not act promptly, the court might have to provide an answer the next time the question came before it.

The 1989 Minnesota Legislature Considers the Issue

After this history of debate on brain death in Minnesota in terms of medical standards, legal developments, and especially upon the urging of the Minnesota Supreme Court, the Minnesota Legislature decided in 1989 that a brain death law was appropriate, and the Legislature offered no substantial opposition to the bill when it was introduced.

The Minnesota Legislature did have legitimate concerns about the bill and needed to be educated on certain basic issues of the brain death concept. First, it was important to distinguish between the legal principle of death—that brain death equals the death of the person—from the actual medical criteria and procedures used at the bedside by the medical profession to determine that brain death had actually occurred. Some legislators still wanted to incorporate in the legislation the specific medical criteria for the determination of brain death, even though that step had not been taken by any of the other 48 states that had legalized brain death. Medical experts pointed out to the legislators that it would be unwise to incorporate any medical criteria into the law because the criteria would change as diagnostic procedures evolved. For example, the period of observation for the determination of brain death had decreased from 24 hours in 1968 to 12 hours in 1976 to six hours in 1981. Also, far better confirmatory studies such as radioisotope studies are being used now instead of EEGs. Finally, it was pointed out to the legislators that, in terms of "generally accepted medical standards," Minnesota had been one of the leaders in this area.

Another legitimate concern raised by the Minnesota Legislature and others was whether there was any possibility that patients who were permanently unconscious, such as those in a persistent vegetative state, would be included under the Uniform Determination of Death Act.[18] This issue was all the more important because of recent efforts to classify anencephalic infants (who are permanently unconscious) as either dead or in a special category for consideration for transplantation under the Uniform Anatomical Gift Act.[19-22] It was pointed out that this issue had been raised in the late '70s and early '80s by the drafters of the UDDA. One way to exclude the consideration of the permanently unconscious patients from this definition of death is to use specific language in the UDDA to distinguish whole brain death from lesser degrees of brain dysfunction. The key phrase, then, in the UDDA uses redundant language: "irreversible cessation of *all* functions of the *entire* brain, including the *brain stem*." The UDDA expresses three separate ways that the entire brain must be destroyed by using the overlapping terms "all," "entire," and "brain stem." The persistent vegetative state (PVS) or other forms of permanent unconsciousness clearly do not fit the criteria. Thus, the UDDA's language precludes any consideration whatsoever that the PVS or other types of permanent unconsciousness would fall under brain death definitions.

Overdue Legislation

With the Legislature's passage of the UDDA and with the governor's signature, Minnesota joined 48 other states and the District of Columbia in legalizing brain death as another standard of death, in addition to the traditional cardiorespiratory standard. Minnesota has now drawn a sharp line between those who are living and those who are dead. But it would be unwise, and wrong, to assume that all medical, ethical, and legal issues surrounding brain death are well settled. This is not the case. There still needs to be continued education of physicians on the medical criteria. In most cases, a neurological specialist is needed to confirm the diagnosis. We need to educate the public about brain death, as well. Many people do not completely understand the brain death concept, which may well affect organ donation decisions. But at last, our Legislature has enacted a brain death law consistent with commonly accepted medical practice.

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References

1. Cranford RE, McCabe JM: Law recognizes brain death. Uniform Law Memo, 1-6, Winter, 1980.

2. Cranford RE: Brain death: Concept and criteria. Minn Med 61:561-563, 600-603, 1978.

3. Guidelines for the Determination of Death: Report of the Medical Consultants on the Diagnosis of Death to the President's Commission for the Study of Ethical Problems in Medicine and Biomedical and Behavioral Research. JAMA 246:2184-2186, 1981.

4. Report of the Ad Hoc Committee of the Harvard Medical School to Examine the Definition of Brain Death: A Definition of Irreversible Coma. JAMA 206:85-88, 1968.

5. Goodman JM, Heck LL, Moore VD: Confirmation of brain death with portable isotope angiography. A review of 204 consecutive cases. Neurosurgery 16:492-497, 1985.

6. Tsai SH, Cranford RE, Rockswold GL, Koehler S: Cerebral radionuclide angiography: Its application and diagnosis of brain death. JAMA 248:591-592, 1982.

7. Manning WH, Vogel HJ: The case for brain death legislation: A response to the critics. Minn Med 62:121-127, 1979.

8. Burns JM, Hamlon JS: Minnesota "brain death" legislation: A step forward. . .or backward? Minn Med 62:273-276, 1979.

9. State v. Gerszewski, DC File No. 70261. CA File No. 78-0751 (Hennepin County, Minnesota, District Court, July 29, 1978) (memorandum). In its opinion the court adopted the definition of brain death utilized in Commonwealth v. Golston, 366NE2d 744, 747-748 (Mass 1977).

10. In re petition of the Children's Hospital, Inc., in special proceedings for an order concerning the medical treatment of Stacey Jaton Ellison, District Court, Second Judicial District, July 11, 1978.

11. Ellison ruled legally dead. St. Paul Dispatch, July 11, 1978.

12. Child's heartbeat stops after respirator removed. Minneapolis Tribune, July 12, 1978.

13. Brain death: We need a law. Minneapolis Star, July 13, 1978.

14. State brain death law is needed. St. Paul Pioneer Press, August 9, 1978.

15. Minnesota still needs a brain-death law, Minneapolis Tribune, April 17, 1979.

16. Anoka County, State of Minnesota v. Duane Dean Olson, Jr., Anoka County District Court (#K-6-88-1036), Minnesota.

17. Anoka County, State of Minnesota v. Duane Dean Olson, Jr., Minnesota Supreme Court C 8-88-1771, January 31, 1989.

18. Cranford RE: The persistent vegetative state: The medical reality. Hast Ctr Rep, February-March, 1988, 27-32.

19. Peabody JL, Emery JR, Ashwal S: Experience with anencephalic infants as prospective organ donors. N Engl J Med 321:344-350, 1989.

20. Stumpf DA, Cranford RE, Elias S, et al.: The infant with anencephaly: The Medical Task Force on Anencephaly (submitted for publication).

21. Cranford RE, Roberts JC: Use of anencephalic infants as organ donors: Crossing a threshold, in Kaufman HH (ed): Pediatric Brain Death and Organ/Tissue Retrieval: Medical, Ethical and Legal Aspects. New York, Plenum Medical Book Company, Chap 20, 1989.

22. Truog RD, Fletcher JC: Anencephalic newborns: Can organs be transplanted before brain death? N Engl J Med 321:388-391, 1989.

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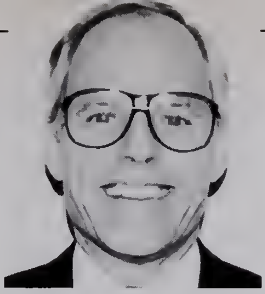

ROBERT D. CHRISTENSEN, M.D.

A Coalition to End Geographic Disparity

For years, a national solution to the problem of geographic disparities in reimbursement for Part B Medicare has been a top priority of the Minnesota Medical Association. Now, the MMA has helped create a national campaign to achieve that goal.

Although Minnesota physicians and seniors have one of the lowest Medicare reimbursement rates in the nation, we are not alone in wanting a more equitable Medicare system. In August, the Minnesota Medical Association and the Utah State Medical Association invited every medical society in the country to join The Geographic Coalition—a national campaign to urge reform of the geographic disparities in Medicare reimbursement. The response has been gratifying. So far, 33 states have joined The Geographic Coalition: Alabama, Arizona, Colorado, Delaware, Idaho, Indiana, Iowa, Kansas, Kentucky, Louisiana, Maine, Minnesota, Mississippi, Missouri, Montana, Nebraska, Nevada, New Hampshire, New Mexico, North Carolina, North Dakota, Ohio, Oklahoma, Oregon, Pennsylvania, South Dakota, Tennessee, Utah, Vermont, Virginia, West Virginia, Wisconsin, and Wyoming.

As part of The Geographic Coalition, I traveled to Washington, D.C., in early October with a small group of MMA physicians and staff. Our mission was to urge Minnesota's congressional delegation to support a concurrent resolution in the House and Senate calling for correction of the geographic disparities. I am pleased to report that the entire Minnesota congressional delegation pledged support for concurrent resolution 116 in the House and 36 in the Senate, expressing the sense of Congress that:

► The problem of geographic variations in physician reimbursement under the Medicare program needs to be addressed, and

► A mechanism for Medicare physician reimbursement should not permit any geographic variations except those that can be justified by regional differences in the cost of medical practice or those that are needed to maintain access to high-quality health care.

"The combined influence of 33 states could have a powerful effect on Congress."

By meeting personally with our legislators and enlisting their support for the concurrent resolution, we laid the groundwork for our future success. Now, with the Minnesota delegation solidly behind us, we're in a position to move forward. Other state medical societies in the coalition are applying similar pressure on their legislators. The combined influence of 33 states could have a powerful effect on Congress.

While we were in Washington, D.C., we also met with senior AMA staff to synchronize our strategies on this issue. We agreed to work together to support a Medicare package that would include three key points:

► Implementation of RBRVS as soon as possible and no later than January 1, 1991.

► A three-year phase-in period for RBRVS. The frequently proposed five-year phase-in period is totally unacceptable.

► Elimination of cost of living as a factor in determining geographic variation. The cost of practice index should include only overhead costs such as employee salaries and benefits, supplies, equipment, etc.

I don't want to minimize the difficulty of the task at hand. Washington is sending a clear message that no additional money is available for Medicare. Any reform must not increase Medicare's budget. If the same funds are simply redistributed, the states that have been receiving a disproportionate share of Medicare reimbursement are going to protest vigorously. They will contact their senators and representatives and urge them to resist any attempts to reduce their slice of the pie. I encourage Minnesota physicians to contact our members of Congress as well (see facing page for addresses and phone numbers).

The Geographic Coalition has been making considerable headway in recent weeks, but it will be a tough fight. We need your help in continuing to push for correction of geographic disparities in Medicare reimbursement. Write or call your representatives and senators and urge their support for the three key points in our Medicare package. It is critical that we make our influence felt while Congress is in the process of restructuring Medicare. Access to quality health care for the elderly in Minnesota and throughout the nation is at stake. ■

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HEALTHY MINNESOTANS

A study by Northwestern National Life Insurance Co. ranked Minnesota the fourth-healthiest state in the nation. Minnesota ranked among the top six states in life expectancy (ranked second), access to health care (third), low incidence of major illness such as heart disease and cancer (fifth), and low mortality (sixth). Minnesotans, however, miss more days of school and work than residents of most states, the study found, and the state ranked 18th on a healthy lifestyle index measuring positive factors such as exercise and diet and negative factors such as smoking.

The study, released October 24, rated Utah the healthiest state, followed by North Dakota and Idaho. Hawaii rounded out the top five, and Delaware was ranked 50th.

OUT-OF-REACH HEALTH INSURANCE

A recent report by the St. Paul Foundation estimated that at least 342,000 Minnesotans are uninsured because they can't afford insurance. The report recommended establishing government-financed health insurance for all the uninsured, and, in the absence of such a program, suggested that public institutions and private donations must keep current health services programs afloat. It also urged the state to better inform the poor of programs already in existence—notably the Children's Health Plan, which provides comprehensive health care to children under 8.

The foundation also reported, however, that even if all people were insured, some would still not seek medical help. It cited several factors besides money that deter the poor from seeing a physician. Often, low-income people lack transportation, a personal physician, adequate English-language skills, and an understanding of the health care system. The poor also might be embarrassed about seeking help, the report stated.

COST CONTAINMENT VS. MORTALITY

Health-care cost-containment measures recently enacted through Medicare and other programs may be associated with mortality rates leveling off after years of decreasing in elderly Hennepin County patients, according to a study published in the October 25 *American Journal of Public Health.* Authors Gregory L. Lindberg of the Hennepin County Office of Planning and Development and colleagues recommend further investigations into the reasons for the changing trend.

Several health-care cost-containment measures, including Medicare's Prospective Payment System (PPS), which stipulates "fixed-price" hospital reimbursement based on diagnosis-related groups, were implemented in Minnesota shortly before the study began. Other local measures included a moratorium on additional nursing home beds, preadmission screening of nursing home applicants, and rapid growth in HMO enrollment by Medicare recipients.

The study describes changes from 1977 through 1986 in hospital use and mortality rates for elderly Medicaid recipients following the implementation of those policy changes. From 1982 to 1984, hospital days for each elderly Medicaid recipient decreased by 38 percent for nursing home residents and 35 percent for non-nursing home residents. By 1986, hospital days per recipient had decreased 53 percent and 55 percent for the two groups. Age-adjusted mortality rates for elderly Medicaid nursing home residents increased steadily after 1982.

COCAINE USE UP

Cocaine use in Minnesota is up dramatically since 1985, according to a study released October 23 by the State Planning Office that focused on arrests, emergency room admissions, and treatment center data. The study cited a near tripling of cocaine and narcotics arrests from 1985 to 1988, a 38-percent jump in juvenile arrests for drug offenses, a tripling of cocaine use among people seeking help in hospital emergency rooms, and 31 cocaine-related deaths in Hennepin and Ramsey counties in 1988.

The Planning Office study appears to contradict a National Institute of Drug Abuse study that showed drug use down 37 percent nationally from 1985 to 1988 and cocaine use down among young adults and juveniles. The two studies, however, used different methods; the national study used household survey techniques to determine actual drug use. Results of a study by the Minnesota Department of Human Services, which used techniques similar to the national study, will be available soon.

RE: GALLBLADDERS

Two separate teams of Minnesota physicians are investigating two new procedures that offer patients full recovery weeks sooner than standard gallbladder surgery.

Mayo Clinic doctors in Rochester, Minnesota, are investigating percutaneous cholecystolithotomy or PCCL, a new procedure that enables them to remove gallstones easily, quickly, and completely. Mayo is one of the three centers worldwide investigating the procedure, which is performed by inserting an endoscope through a ⅓-inch incision in the patient's abdomen, examining the gallbladder, and removing the smaller stones with a surgical instrument. If stones are too large to remove, they are broken into small pieces with an ultrasonic probe and removed with suction.

In Minneapolis, Abbott Northwestern Hospital physicians are combining laparoscopy with lasers to remove gallbladders. The new technique allows an entire gallbladder surgery to be performed through four pen-sized holes. General surgeons Leonard Schultz, M.D., and John Graber, M.D., have performed this procedure, called laser laparoscopic cholecystectomy, on 17 patients at Abbott Northwestern Hospital and introduced the technique in October at the American College of Surgeons meeting in Atlanta.

NATIONAL INTERNISTS' AWARD

Minneapolis internist B. J. Kennedy, M.D., a pioneer in cancer research and treatment, in October received a special recognition award from the 20,000-member American Society of Internal Medicine (ASIM).

ASIM presents the award each year to an internist who has made a significant contribution to the social and economic aspects of internal medicine. For more than 40 years, Kennedy has dedicated his career as a clinical investigator and educator to providing high-quality, cost-effective care for cancer patients. He is currently Masonic Professor of Oncology and Regents Professor of Medicine at the University of Minnesota Medical School and has been the director of the Division of Oncology in the medical school's Department of Medicine since 1970.

UP IN SMOKE

The White Bear Lake, Minnesota, city council in October voted four to one to ban cigarette vending machines by January 7, thus becoming the first city in the country to ban such machines. The idea, designed to help keep juveniles from becoming addicted to nicotine, quickly caught on as city councils in both Minneapolis and St. Paul followed with proposals for bans of their own.

Meanwhile, the Ramsey County Board voted October 10 to ban smoking in all but a few county buildings effective January 1.

IN THE SHADOW OF MALPRACTICE SUITS

A two-year study by the Institute of Medicine has determined that increasingly frequent malpractice suits and escalating insurance premiums are prompting some physicians to stop delivering babies, leaving poor women with limited obstetric care. "The fear of being sued has caused many doctors and midwives to limit care, especially for women with high-risk pregnancies," said the study committee's chair, Roger Bulger, president of the Association of Academic Health Centers. "In urban areas, this often means that low-income women have been hurt the most by the lack of providers," he said.

NOT A RAY OF SUNSHINE

A marked increase in the incidence of squamous cell carcinoma and malignant melanoma over 27 years may signal an emerging epidemic of the diseases, especially in fair-skinned people, according to a report in the October 20 *Journal of the American Medical Association.*

In a study focusing on 2,453 cases of invasive skin cancers reported from 1960 to 1987 to the tumor registry of the Kaiser Permanente prepaid health insurance program in Portland, Oregon-Vancouver, Washington, researchers noted that the incidence of squamous cell skin cancer increased 2.6 times in men and 3.1 times in women, while the incidence of malignant melanoma rose 3.5-fold and 4.6-fold in men and women, respectively.

The changes reiterate the need for education concerning the hazards of overexposure to the sun, concluded the authors, Andrew G. Glass, M.D., of the Center for Health Research, Kaiser Permanente, Portland, Oregon, and Robert N. Hoover, M.D., Sc.D. of the Environmental Epidemiology Branch, National Cancer Institute, Bethesda, Maryland.

EXERCISE REGULARLY, MODERATELY

Improving one's physical fitness through regular, moderate exercise can reduce the risk of early death from cardiovascular disease and cancer, according to a report in the November 3 *Journal of the American Medical Association.*

"Approximately 30 percent of U.S. adults are quite sedentary, and the prevalence of low fitness levels is correspondingly high," said the authors, Steven N. Blair, PED, of the Institute for Aerobics Research, Dallas, and colleagues. A brisk walk of 30 to 60 minutes each day will be sufficient to achieve fitness and reduce the risk of death from cardiovascular disease and cancer for most men and women, they said.

The researchers studied 10,224 men and 3,120 women who had received a preventive medical examination at a Dallas clinic between 1970 and 1981. Physical fitness was measured by a treadmill exercise test. Patients were then assigned to physical fitness categories based on their age, sex, and length of time on the treadmill.

SOCIALLY UNHEALTHY CHILDREN

Children's well-being, as measured by a national social health index, reached an 18-year low in 1987—the last year for which statistics are available. The Index of Social Health of Children measures data, compiled mainly by the federal government, in six critical problem areas: infant mortality, child abuse, children living in poverty, teen-age suicide, teen-age drug abuse, and high school dropouts. Results are then placed on a scale from zero to 100. In 1987, following sharp increases in child and teen-ager abuse, poverty, and suicide, the index reached 37—its lowest point since data were first compiled in 1970. In that year, the index was 68; it peaked at 72 in 1973.

DOWN IN SMOKE

America's smoking rate continued its steady decline in 1987, but it appears that it will fall short of the federal goal of 25 percent by 1990. According to a face-to-face survey conducted by the Centers for Disease Control, 28.8 percent of Americans were smokers in 1987, down from 30.1 percent in 1985—a pace seemingly too slow to meet the federal goal.

ANTI-PNEUMONIA AIDS DRUG

Lyphomed of Rosemont, Illinois, manufacturer of the pneumonia-preventing AIDS drug pentamidine, announced in October that it would make the drug available to uninsured patients for free. Lyphomed had been accused of overcharging for the drug, whose wholesale price is $99.54 for an aerosol vial that lasts a month. At least 200,000 HIV-infected Americans need pentamidine to prevent *Pneumocystis carinii* pneumonia, the leading killer of people with AIDS.

LUNG CANCER DEATHS

Lung cancer death rates among 35 to 44 year olds declined from 1976 to 1985, according to National Cancer Institute statistics released in October. For that age group, the rate dropped 29 percent for white men, 7 percent for black men, 5 percent for white women, and 9 percent for black women. The lung cancer death rate for white men in the 45- to 54-year-old range also declined—by 7 percent; however, largely due to a continued increase in the lung cancer death rate for those over 65, the death rate due to lung cancer among all Americans continues to climb.

PROMISING TRANSPLANT DRUG

Preliminary studies at the University of Pittsburgh of a new drug have shown it to be remarkably successful in preventing rejection of transplanted organs. A team headed by transplant pioneer Thomas E. Starzl, M.D., has tested the drug—still called by its code name, FK-506—on more than 100 organ recipients. The tests have revealed the drug to be not only far more effective than cyclosporin, the major anti-rejection drug now in use, but to produce fewer side effects. And surprisingly, FK-506 even reversed rejection in some liver recipients being treated with cyclosporin. The Pittsburgh team presented its preliminary findings to the Food and Drug Administration in October. They noted, however, that more successful organ transplants will worsen the already desperate shortage of donor organs.

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Please see next page for brief summary of prescribing information.

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K-DUR™ Microburst Release System™
(potassium chloride) Sustained Release Tablets

INDICATIONS AND USAGE: BECAUSE OF REPORTS OF INTESTINAL AND GASTRIC ULCERATION AND BLEEDING WITH SLOW-RELEASE POTASSIUM CHLORIDE PREPARATIONS, THESE DRUGS SHOULD BE RESERVED FOR THOSE PATIENTS WHO CANNOT TOLERATE OR REFUSE TO TAKE LIQUID OR EFFERVESCENT POTASSIUM PREPARATIONS OR FOR PATIENTS IN WHOM THERE IS A PROBLEM OF COMPLIANCE WITH THESE PREPARATIONS.

1. For therapeutic use in patients with hypokalemia with or without metabolic alkalosis, in digitalis intoxication and in patients with hypokalemic familial periodic paralysis.
2. For the prevention of potassium depletion when the dietary intake is inadequate in the following conditions: Patients receiving digitalis and diuretics for congestive heart failure, hepatic cirrhosis with ascites, states of aldosterone excess with normal renal function, potassium-losing nephropathy, and with certain diarrheal states.
3. The use of potassium salts in patients receiving diuretics for uncomplicated essential hypertension is often unnecessary when such patients have a normal dietary pattern. Serum potassium should be checked periodically, however, and if hypokalemia occurs, dietary supplementation with potassium-containing foods may be adequate to control milder cases. In more severe cases supplementation with potassium salts may be indicated.

CONTRAINDICATIONS: Potassium supplements are contraindicated in patients with hyperkalemia since a further increase in serum potassium concentration in such patients can produce cardiac arrest. Hyperkalemia may complicate any of the following conditions: Chronic renal failure, systemic acidosis such as diabetic acidosis, acute dehydration, extensive tissue breakdown as in severe burns, adrenal insufficiency, or the administration of a potassium-sparing diuretic (e.g., spironolactone, triamterene).

Wax-matrix potassium chloride preparations have produced esophageal ulceration in certain cardiac patients with esophageal compression due to enlarged left atrium.

All solid dosage forms of potassium chloride supplements are contraindicated in any patient in whom there is cause for arrest or delay in tablet passage through the gastrointestinal tract. In these instances, potassium supplementation should be with a liquid preparation.

WARNINGS: Hyperkalemia—In patients with impaired mechanisms for excreting potassium, the administration of potassium salts can produce hyperkalemia and cardiac arrest. This occurs most commonly in patients given potassium by the intravenous route but may also occur in patients given potassium orally. Potentially fatal hyperkalemia can develop rapidly and be asymptomatic. The use of potassium salts in patients with chronic renal disease, or any other condition which impairs potassium excretion, requires particularly careful monitoring of the serum potassium concentration and appropriate dosage adjustment

Interaction with Potassium Sparing Diuretics—Hypokalemia should not be treated by the concomitant administration of potassium salts and a potassium-sparing diuretic (e.g., spironolactone or triamterene) since the simultaneous administration of these agents can produce severe hyperkalemia.

Gastrointestinal Lesions—Potassium chloride tablets have produced stenotic and/or ulcerative lesions of the small bowel and deaths. These lesions are caused by a high localized concentration of potassium ion in the region of a rapidly dissolving tablet, which injures the bowel wall and thereby produces obstruction, hemorrhage or perforation.

K-DUR tablets contain micro-crystalloids which disperse upon disintegration of the tablet. These micro-crystalloids are formulated to provide a controlled release of potassium chloride. The dispersibility of the micro-crystalloids and the controlled release of ions from them are intended to minimize the possibility of a high local concentration near the gastrointestinal mucosa and the ability of the KCl to cause stenosis or ulceration. Other means of accomplishing this (e.g., incorporation of potassium chloride into a wax matrix) have reduced the frequency of such lesions to less than one per 100,000 patient years (compared to 40–50 per 100,000 patient years with enteric-coated potassium chloride) but have not eliminated them. The frequency of GI lesions with K-DUR tablets is, at present, unknown. K-DUR tablets should be discontinued immediately and the possibility of bowel obstruction or perforation considered if severe vomiting, abdominal pain, distention, or gastrointestinal bleeding occurs.

Metabolic Acidosis—Hypokalemia in patients with metabolic acidosis should be treated with an alkalinizing potassium salt such as potassium bicarbonate, potassium citrate, potassium acetate, or potassium gluconate

PRECAUTIONS: The diagnosis of potassium depletion is ordinarily made by demonstrating hypokalemia in a patient with a clinical history suggesting some cause for potassium depletion. In interpreting the serum potassium level, the physician should bear in mind that acute alkalosis per se can produce hypokalemia in the absence of a deficit in total body potassium while acute acidosis per se can increase the serum potassium concentration into the normal range even in the presence of a reduced total body potassium. The treatment of potassium depletion, particularly in the presence of cardiac disease, renal disease, or acidosis requires careful attention to acid-base balance and appropriate monitoring of serum electrolytes, the electrocardiogram, and the clinical status of the patient.

Laboratory Tests: Regular serum potassium determinations are recommended. In addition, during the treatment of potassium depletion, careful attention should be paid to acid-base balance, other serum electrolyte levels, the electrocardiogram, and the clinical status of the patient, particularly in the presence of cardiac disease, renal disease, or acidosis

Drug Interactions: Potassium-sparing diuretics; see **WARNINGS.**

Carcinogenesis, Mutagenesis, Impairment of Fertility: Long-term carcinogenicity studies in animals have not been performed

Pregnancy Category C: Animal reproduction studies have not been conducted with K-DUR. It is also not known whether K-DUR can cause fetal harm when administered to a pregnant woman or can affect reproduction capacity. K-DUR should be given to a pregnant woman only if clearly needed.

Nursing Mothers: The normal potassium ion content of human milk is about 13 mEq per liter. Since oral potassium becomes part of the body potassium pool, so long as body potassium is not excessive, the contribution of potassium chloride supplementation should have little or no effect on the level in human milk

Pediatric Use: Safety and effectiveness in children have not been established

ADVERSE REACTIONS: One of the most severe adverse effects is hyperkalemia (see **CONTRAINDICATIONS, WARNINGS,** and **OVERDOSAGE**). There have also been reports of upper and lower gastrointestinal conditions including obstruction, bleeding, ulceration, and perforation (see **CONTRAINDICATIONS** and **WARNINGS**); other factors known to be associated with such conditions were present in many of these patients.

The most common adverse reactions to oral potassium salts are nausea, vomiting, abdominal discomfort, and diarrhea. These symptoms are due to irritation of the gastrointestinal tract and are best managed by taking the dose with meals or reducing the dose.

Skin rash has been reported rarely.

OVERDOSAGE: The administration of oral potassium salts to persons with normal excretory mechanisms for potassium rarely causes serious hyperkalemia. However, if excretory mechanisms are impaired or if potassium is administered too rapidly intravenously, potentially fatal hyperkalemia can result (see **CONTRAINDICATIONS** and **WARNINGS**). It is important to recognize that hyperkalemia is usually asymptomatic and may be manifested only by an increased serum potassium concentration and characteristic electrocardiographic changes (peaking of T-waves, loss of P-waves, depression of S-T segment, and prolongation of the QT-interval). Late manifestations include muscle-paralysis and cardiovascular collapse from cardiac arrest.

Treatment measures for hyperkalemia include the following:

1. Elimination of foods and medications containing potassium and of potassium-sparing diuretics.
2. Intravenous administration of 300 to 500 ml/hr of 10% dextrose solution containing 10–20 units of insulin per 1,000 ml.
3. Correction of acidosis, if present, with intravenous sodium bicarbonate
4. Use of exchange resins, hemodialysis, or peritoneal dialysis.

In treating hyperkalemia, it should be recalled that in patients who have been stabilized on digitalis, too rapid a lowering of the serum potassium concentration can produce digitalis toxicity

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MEDICAL VALUATION SPECIALISTS

Blackburn from page 696

I was present at the creation of cardiovascular epidemiology. Over the last 30 years it has grown into a powerful tool for studying the causes and prevention of degenerative cardiovascular disease.

REECE: *Much of your life's work has been devoted to gathering data on risk factors for cardiovascular disease in various parts of the world and relating that data to disease outcomes. Much of that work concentrated on measuring lipid levels.*

BLACKBURN: We measured whatever we thought was of interest, and that included lipid levels. We started these measurements in the late '40s with Minnesota's business and professional leaders, and we took their lipid counts for 30 years. In the '50s we decided to make these studies international. We measured the basic human characteristics that had to do with diet, physical activities, smoking patterns, drinking patterns, work patterns, and familial and occupational factors.

Culture as a Health Threat

We recognized early that we were dealing with mass phenomena, not just individual families or a few people in populations with unusual risk. Some populations had a lot of fatty arteries, but in other populations, we simply couldn't find atherosclerosis. These differences began to affect our thinking; we reasoned: "Maybe we're all basically susceptible to these diseases that we die of in mass—50 percent of us have cardiovascular disease, three-fourths of us become hypertensive in the course of a lifetime, and a fourth of us die of cancer. Heredity affects individual susceptibility, but maybe our culture dictates our susceptibility as a people."

So I began to think in terms of "sick populations," not just sick individuals. I began to recognize that mass diseases and risk in society may depend more on environmental and cultural patterns than on genetics. If culture was the mass culprit, then perhaps changing the mass consciousness and behavior could reduce the population rates of disease.

REECE: *You recognized early that culture is a very powerful influencing factor. Did you also believe early that you could modify behavior in these cultures?*

BLACKBURN: The fact that we had documented large differences between cultures led us to believe prevention was possible. Whether we could change the culture was another issue. Most of our experience had to do with individuals in lipid-reduction clinics or smoking clinics. In the early days of those clinics, results were not very impressive. But we became fascinated with the idea that maybe a whole society could change, thereby helping individuals to change. We thought if people received similar healthy messages from their doctors, schools, grocery stores, and in national media campaigns, perhaps they would begin to change their behavior and make more informed decisions. We had enough direct experience to know that people could change.

"I began to recognize that mass diseases and risk in society may depend more on environmental and cultural patterns than on genetics."

Healthier Hearts

REECE: *Clearly something profound has happened in the United States culture in the last 25 years or so. The death rate from heart attacks has dropped 40 percent. Deaths from strokes are down by 50 percent. How do you account for these startling reductions?*

BLACKBURN: The Minnesota Heart Survey is the source of some of the data you cite. Our School of Public Health is one of the few centers in the country that has systematically measured change in cardiovascular death rates, hospitalization rates, death rates outside the hospital, changes in medical cardiac care, and changes in risk-factor levels in the community. Incidence is difficult to measure, as the diagnostic categories and sensitivities are changing, and severity may be changing.

But the coronary death rate in and out of the hospital is definitely falling, in part due to hospital and medical care, in part due to lifestyle improvement.

REECE: *You're saying the incidence of coronary artery disease remains the same or is a mystery because it's difficult to measure?*

BLACKBURN: No. I'm saying that the incidence is not changing as rapidly as the death rate, which suggests that medical care is having a more profound influence on preventing death than we earlier thought.

REECE: *Why is the death rate dropping?*

BLACKBURN: The decline is due to medical and risk-factor changes. Cholesterol levels are going down about 1 percent every two years. Blood pressure average is down. The proportion of controlled hypertensives is up a great deal—almost 80 percent of hypertensives in the Twin Cities are treated and controlled. These factors may explain about half the change in death rate. Emergency medical care explains a small bit. Coronary artery bypass surgery, according to our models, is currently responsible for about 10 percent of the decline in the coronary death rate. So it's medical care, high-tech cardiological care, plus profound changes in the population risk as a whole that are working to reduce mortality.

Spreading the Gospel of Community Health

REECE: *Unlike many other sectors of academic medicine, the Division of Epidemiology in the School of Public Health works directly with the community. You have many community programs. Describe for us some of these programs.*

BLACKBURN: The medical model is concerned with diagnosing the "metabolic defect" in the individual, characterizing that individual, and selectively applying therapy. For us, however, the population, rather than the individual, is the laboratory. We try to determine what mass phenomena influence the group experience in disease. We try to measure that, systematically follow its trends, apply scientific design, and try to modify the phenomena in work sites, schools, and whole communities. The basic difference between the medical and population or public health model is that we think in terms of sick and well populations, characterizing them and intervening appropriately, whereas the physician deals with the individual.

"But the coronary death rate . . . is definitely falling, in part due to hospital and medical care, in part due to lifestyle improvement."

We have a number of strategies to measure what's going on in the community. We conduct systematic surveys of children; we conduct surveys of 500 to 1,000 randomly selected families in the Twin Cities every year; we conduct telephone surveys to determine effects of short-term campaigns in communities; and we have a number of outreach strategies.

We like to "do good" in terms of delivering preventive care, but we always like to use a design that allows us to measure the efforts. We have 40 or 50 projects now going on. For example, we're studying smoking in school children and coronary risk factors in the 18-to-30 age group. We're studying atherosclerosis risk in whole communities in the northwest quadrant of the Twin Cities, at North Memorial Medical Center. We're using multi-risk education in the Hopkins school system. We're comparing Minnesota school smoking prevention programs in the seventh grade with Wisconsin, which has no program. We have workplace programs that try to help people stop smoking and control their weight at the same time. We have grocery store programs that help people make informed choices. We have lean-meat programs, low-fat, low-salt programs, and "shop-smart" guidelines in most of the major markets in the communities where we operate. We have a whole series of behavioral strategies within an overall evaluation scheme. We're helping people to become more informed and make better choices.

Our idea has been that if you convince people to make small changes, those changes, compounded over a long period of time and magnified by millions of people, multiply and produce a powerful public health impact. For example, we initiated a lean-meats program whereby we trained butchers and demonstrators to prepare leaner meats; the Beef and Pork Council of Minnesota provided labels with our lean-meat logo; and we mounted a campaign in stores to help people select healthier meats. If, through this program, we reduced saturated fat consumption of many people by an average of 1 percent per year, this would have a profound health effect over the years. These are the gradual changes that spread the gospel in small ways in the supermarket. The changes that reduce risk don't always take place only in doctors' offices or in response to the mass media, but also in the supermarkets and restaurants, where people make decisions about what to eat.

REECE: *Has the mean cholesterol level of Minnesotans been dropping?*

BLACKBURN: Yes. In the 1950s and 1960s the average cholesterol level was 230 to 235 in middle-aged Minnesotans. In the 1970s, it was 210 to 215; and now it's closer to 200. It's been dropping about 5 percent a decade.

The Nay Sayers

REECE: *And yet in spite of this paradigm shift in behavior of the populace, there are those who say the benefit of reducing cholesterol is a myth. I refer to Thomas Moore's article, "The Cholesterol Myth," in the September* Atlantic Monthly. *What is your comment on that article?*

BLACKBURN: The *Atlantic Monthly* article is ill-informed and ill-motivated. It is mischievous and not constructive. There are always a few investigators, very few, who still think that the medical model is the only way to go. They believe all preventive measures should be done by the doctor, screening should be done in the doctor's office, and specific treatment given only to people with specific risk factors.

Those of us who look at health behavior as a mass phenomenon and who have calculated the effects of medical intervention in high-risk screening, find that two-thirds to three-fourths of the excess cases attributable to high-risk factors or risky behavior would not be touched by such medical screening or treatment.

Obviously, if we deal only with sick and high-risk adults, we miss the origins of a continued epidemic among our youth.

The best thing to do is to employ *both* medical and epidemiological approaches. The World Health Organization has had a policy for the last eight years that says the medical model is excellent for countries that can afford to screen its people and to treat them appropriately in the doctor's office and clinic, but the public health strategy is far more effective overall. While there are vested interests in keeping things how they are, many positive forces are now at work. The meat board of this country is

"For us, however, the population, rather than the individual, is the laboratory."

doing much to produce cattle that are leaner at slaughter weight. Northwest Airlines has banned smoking on all domestic flights. Many restaurants and food purveyors are promoting low-fat foods. Minnesota leads the world in smoke-free buildings. These efforts are all significant. The American Heart Association, the National Academy of Sciences, and many international groups have reached consensus about the importance of changing mass behaviors and mass risk factors. The world is undoubtedly moving that way.

REECE: *The public, then, may be collectively smarter than those with a vested interest in maintaining the status quo?*

BLACKBURN: Society recognizes what makes good sense for its health. We're going back to simpler things that make sense—reducing calories, drinking less alcohol, exercising more, eating less fat, but all in an attractive and rewarding lifestyle, not one of deprivation!

A Community Health Catalyst

REECE: *On a personal level, what do you regard as your single greatest achievement?*

BLACKBURN: I'm reminded of the time Ancel Keys was asked at an international conference what was the single strongest piece of evidence supporting his idea about diet causing coronary disease. He made the mistake of citing some piece of evidence, and in their usual skeptical academic way his critics "destroyed" him on that day. Why? Because there is rarely a single best piece of evidence, there is no single thing, that is overwhelmingly significant. It is the whole body of evidence or of contribution.

Putting many disciplines together to work on projects, using the population as the laboratory and as the stage of knowledge, that's the trick. Designing the laboratory experiments and getting multiple people on the stage requires a variety of study designs, survey observations, community surveillance, clinical trials, and community campaigns. My contribution may be as a catalyst to putting all these ideas, methods, and players together on one stage.

Behavior-based Epidemics

REECE: *But establishing the theme of the play is also important. It seems to me you're saying that measuring risk factors and modifying human behaviors are the last great dramas in significantly reducing disease and improving human life.*

BLACKBURN: Put that in context with what causes our modern epidemics. I believe you will find that all epidemics have resulted from mass shifts in the culture and in human behavior. Consider the tuberculosis plague, when people were poor and lived in crowded conditions, or alcoholism in London when gin was cheap, or epidemics of sexually transmitted diseases, which occurred when certain risky behaviors exploded en masse. Degenerative diseases in Western civilizations—due to mass shifts in eating patterns, sedentary behavior, and overindulgence—are no different. Most epidemics, though they have some specific metabolic or infectious component central to them, result from a cultural shift in behavior. Modifying mass behavior is the solution to stemming—and preventing—epidemics.

REECE: *So the current great epidemics of Western civilization—degenerative diseases—are behaviorally based?*

BLACKBURN: Yes. There are genetic components, of course, in an individual's personal risk within the risky society. But the point is, since we're all one species, we are generally similar in our wide susceptibility to heart attack, hypertension, obesity, and many cancers. The differences between populations—which are profound in different parts of the world—are predominantly due to the cultural influence, whereas your and my individual differences may depend more on heredity and lifestyle. Most humans are susceptible to fatty arteries. Put them in a good environment, like Japan or the Greek islands, and they simply will not have heart attacks. Put them in a bad environment, like eastern Finland, and two-thirds of them will die of heart attacks and strokes. So, although genetics is crucial to understanding individual differences and mechanisms, it's the interaction of this *widespread* human susceptibility to environmental risk factors that determines our mass health. We can improve our health dramatically, but first we must understand the factors that adversely influence it, measure them systematically, and then, with the help of the entire community, begin changing in small ways those routine habit patterns that flow together to form what we call health. ■

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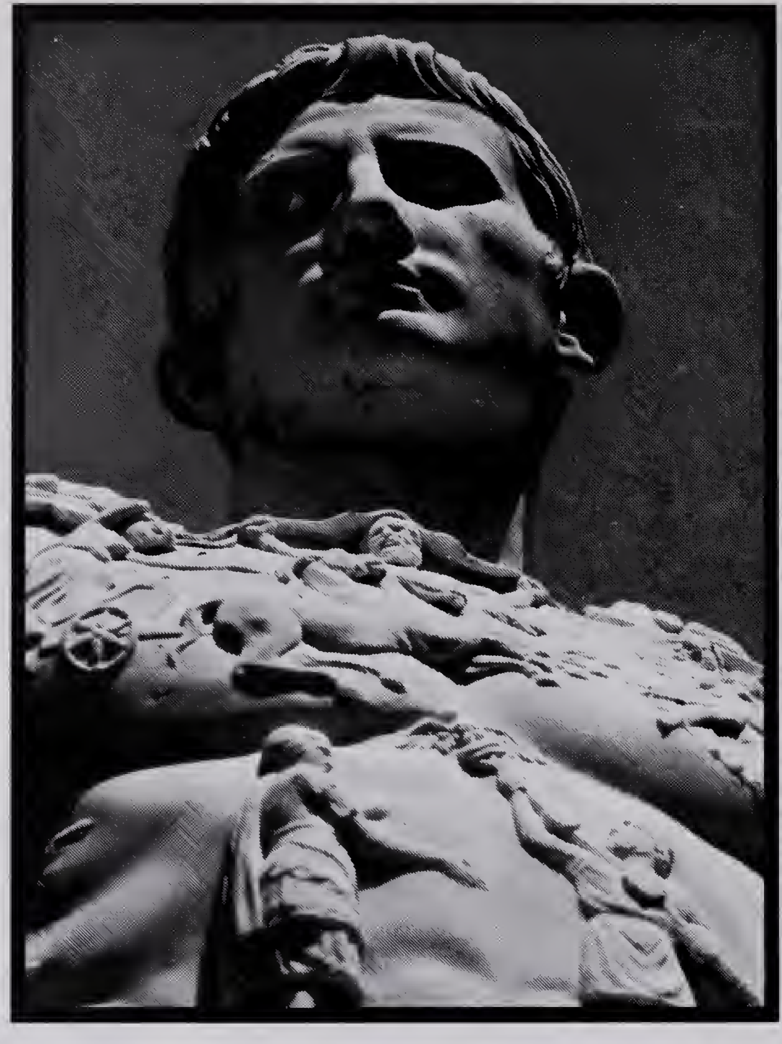

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DECEMBER 1989

1 **Dual Disorders—Mental Illness and Mental Retardation** St. Paul-Ramsey Medical Center; Sheraton Midway Hotel, St. Paul, Minnesota. CONTACT: Bonnie Young, 640 Jackson Street, St. Paul, Minnesota 55101; (612) 221-3977.

1 **2nd Annual Musculoskeletal Conference** Hennepin Faculty Associates; Hennepin County Medical Center, Minneapolis, Minnesota. CONTACT: Eugenia Kassar, Hennepin Faculty Associates, 701 Park Avenue, Suite 4220, Minneapolis, Minnesota 55415; (612) 347-2075.

1-2 **General Laser Surgery: A "Hands-On" Training Program** Abbott Northwestern Hospital; Abbott Northwestern Hospital, Minneapolis, Minnesota. CONTACT: Tim Schuh, CME Office, Abbott Northwestern Hospital, 800 East 28th Street, Minneapolis, Minnesota 55407; (612) 863-5461.

7 **Epileptic Syndrome: Genetics, Diagnosis, Therap**y University of Minnesota Department of Neurology, University of Minnesota Medical School, American Epilepsy Society, and Epilepsy Foundation of America; Westin Hotel, Boston, Massachusetts. CONTACT: Office of CME, Box 202 UMHC, 420 Delaware Street SE, Minneapolis, Minnesota 55455; (612) 626-5525.

7-9 **Annual Cardiopulmonary Medicine Update** St. Paul-Ramsey Medical Center; Holiday Inn East, St. Paul, Minnesota. Bonnie Young, 640 Jackson Street, St. Paul, Minnesota 55101; (612) 221-3977.

16 **Saturday Sports Medicine Symposium** Governor's Council on Physical Fitness and Sport; Lakeview Memorial Hospital, Stillwater, Minnesota. CONTACT: Robert Johnson, M.D., 5 West Lake Street, Minneapolis, Minnesota 55408; (612) 824-1647.

JANUARY 1990

15-19 **Case Studies in Hematology and Surgical Pathology** Mayo Medical Laboratories, Breckenridge, Colorado. CONTACT: Martha Carey, Mayo Medical Laboratories, 200 First Street SW, Rochester, Minnesota 55905; (800) 562-1787.

22-24 **Partners in Managing Type II Diabetes** International Diabetes Center; International Diabetes Center, Park Nicollet Medical Foundation, Minneapolis, Minnesota. CONTACT: Cindy Poppitz, 5000 West 39th Street, Minneapolis, Minnesota 55416; (612) 927-3393.

26-27 **Current Concepts of Cardiology** Abbott Northwestern Hospital; Radisson Arrowwood Inn, Alexandria, Minnesota. CONTACT: Tim Schuh, CME Office, Abbott Northwestern Hospital, 800 East 28th Street, Minneapolis, Minnesota 55407; (612) 863-5461.

Jan 29-Feb 2 **Team Management of Diabetes Mellitus** International Diabetes Center; International Diabetes Center, Park Nicollet Medical Foundation, Minneapolis, Minnesota. CONTACT: Cindy Poppitz, 5000 West 39th Street, Minneapolis, Minnesota 55416; (612) 927-3393.

FEBRUARY 1990

3-4 **Issues in Pediatrics** Children's Hospital Merit Care; Arrowwood Resort, Alexandria, Minnesota. CONTACT: Sue Heinze, Children's Hospital Merit Care, 720 4th Street North, Fargo, North Dakota 58122; (701) 234-5737.

12-16 **Neurology in Clinical Practice** Mayo Clinic/Mayo Foundation; Kauai Hilton, Lihue, Hawaii. CONTACT:Rita Kunz, 200 First Street SW, Mayo Clinic, Rochester, Minnesota 55905; (507) 284-2509.

24-26 **AMA 1990 National Leadership Conference** American Medical Association; Phoenix, Arizona. CONTACT: American Medical Association, 535 North Dearborn, Chicago, Illinois 60610; (312) 645-5000.
Rita Kunz, 200 First Street SW, Mayo Clinic, Rochester, Minnesota 55905; (507) 284-2509.

Feb 28-Mar 4 **Thoracic Organ Transplantation** Minneapolis Heart Institute Foundation; Westin La Paloma, Tucson, Arizona. CONTACT: Tim Schuh, Minneapolis Heart Institute Foundation, 920 East 28th Street, Suite 60, Minneapolis, Minnesota 55407; (612) 863-3979.

MARCH 1990

7-9 **Annual Critical Care Medicine Conference** St. Paul-Ramsey Medical Center; Holiday Inn East, St. Paul, Minnesota. CONTACT: Bonnie Young, 640 Jackson Street, St. Paul, Minnesota 55101; (612) 221-3977.

15-16 **Family Practice Toda**y St. Paul-Ramsey Medical Center; Holiday Inn East, St. Paul, Minnesota. CONTACT: Bonnie Young, 640 Jackson Street, St. Paul, Minnesota 55101; (612) 221-3977.

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Submission Times: Submit during the first two weeks of January and June clinical and health manuscripts that require peer review (e.g., case reports, review articles, and clinical/research papers that report results and analyze data).

Submit at any time essays, letters, book reviews, and reports and commentary that do not require peer review.

Manuscripts: Submit manuscripts to: *Minnesota Medicine*, 2221 University Avenue SE, Suite 400, Minneapolis, MN 55414. Manuscripts are reviewed by the editors and peer reviewed by the Advisory Committee, the Board of Editors, and other experts in particular specialties.

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A cover letter should identify the author with whom we correspond (include address and phone number). Double-space all text on one side of the paper only, including references, legends, etc., and number pages consecutively.

Receipt of manuscripts is acknowledged within 10 days, and authors are usually notified whether their manuscript is accepted within one to three months, but longer delays are sometimes unavoidable.

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Abstract: The second page of the manuscript should include an abstract no longer than 200 words that highlights for the reader the essence of the authors' work. It should focus on facts rather than descriptions and should emphasize the importance and uniqueness of the findings and list briefly the approach used for gathering data and the conclusions drawn from the data.

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1. Benson RC Jr.: Laser photodynamic therapy for bladder cancer. Mayo Clinic Proc 61:859-864, 1986.
2. Guttormson NL, Bubrick MP: Mortality from ischemic colitis. Dis Colon & Rectum, to be published.
3. Chaterjee SN: Use of GOR-TEX grafts as vascular access procedure for chronic hemodialysis. Abstract of a paper submitted to the European Society for Artificial Organs Eighth Annual Meeting, Copenhagen, August, 1981.
4. Thompson NW: Thyroid and parathyroid, in Welch KJ, Randolph JG, Ravitch MM, et al. (eds): Pediatric Surgery, ed 4. Chicago, Year Book Medical, 1986, vol 1, pp 522-533.

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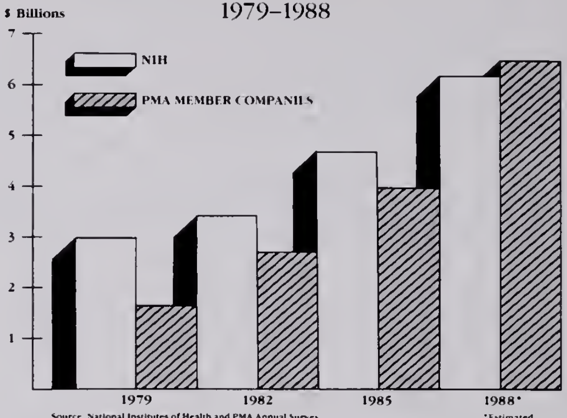

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